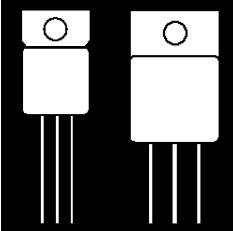


OM60N06SA OM60N05SA OM50N06ST
OM50N06SA OM50N05SA OM50N05ST

LOW VOLTAGE, LOW $R_{DS(on)}$ POWER MOSFETS IN HERMETIC ISOLATED PACKAGE



**50V And 60V Ultra Low $R_{DS(on)}$
Power MOSFETs In TO-257 And TO-254
Isolated Packages**

FEATURES

- Isolated Hermetic Metal Packages
- Ultra Low $R_{DS(on)}$
- Low Conductive Loss/Low Gate Charge
- Available Screened To MIL-S-19500, TX, TXV And S Levels
- Ceramic Feedthroughs Available

DESCRIPTION

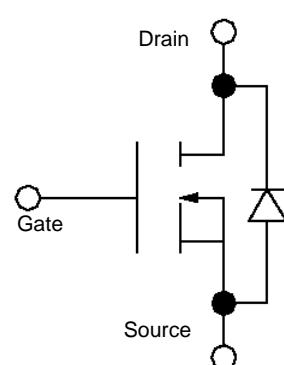
This series of hermetic packaged MOSFETs are ideally suited for low voltage applications; battery powered voltage power supplies, motor controls, dc to dc converters and synchronous rectification. The low conduction loss allows smaller heat sinking and the low gate charge simpler drive circuitry.

MAXIMUM RATINGS (Per Device)

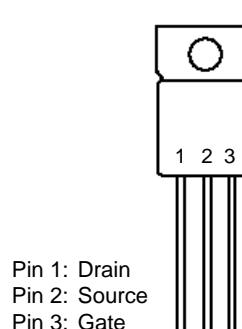
PART NO.	V_{DS} (V)	$R_{DS(on)}$ (Ω)	I_D (A)	Package
OM60N06SA	60	.025	60	TO-254AA
OM50N06SA	60	.030	50	TO-254AA
OM50N06ST	60	.035	50	TO-257AA
OM60N05SA	50	.025	60	TO-254AA
OM50N05SA	50	.030	50	TO-254AA
OM50N05ST	50	.035	50	TO-257AA

3.1

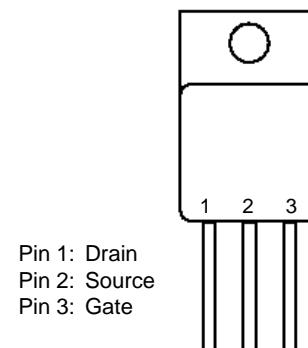
SCHEMATIC



T-3 PIN CONNECTION



M-PAK PIN CONNECTION



OM60N06SA - OM50N05ST

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Parameter	60N06SA	50N06ST 50N05SA	60N05SA	50N05ST 50N05SA	Units	
V_{DS}	Drain-Source Voltage	60	60	50	50	V
V_{DGR}	Drain-Gate Voltage ($R_{GS} = 1 \text{ M}\Omega$)	60	60	50	50	V
V_{GS}	Gate-Source Voltage, Continuous	± 20	± 20	± 20	± 20	V
$I_D @ T_C = 25^\circ\text{C}$	Continuous Drain Current ²	55	50	55	50	A
$I_D @ T_C = 100^\circ\text{C}$	Continuous Drain Current ²	37	33	37	33	A
I_{DM}	Pulsed Drain Current ¹	220	200	220	200	A
$P_D @ T_C = 25^\circ\text{C}$	Maximum Power Dissipation	100	100	100	100	W
$P_D @ T_C = 100^\circ\text{C}$	Maximum Power Dissipation	40	40	40	40	W
Junction-To-Case	Linear Derating Factor ¹	.80	.80	.80	.80	W/ $^\circ\text{C}$
T_J	Operating and	-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range					
Lead Temperature (1/16" from case for 10 secs.)		300	300	300	300	$^\circ\text{C}$

1 Pulse Test: Pulse width $\leq 300 \mu\text{sec}$. Duty Cycle $\leq 1.5\%$.

2 Package Limited SA $I_o = 25 \text{ A}$, SC $I_o = 35 \text{ A}$ @ 25°C

THERMAL RESISTANCE

R_{thJC} Junction-to-Case	1.25	$^\circ\text{C/W}$
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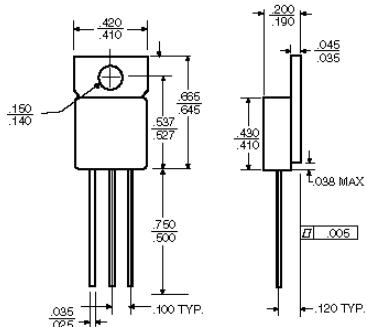
PACKAGE LIMITATIONS

Parameters	TO254AA	TO-257AA	Unit
I_D Continuous Drain Current	25	15	A
Linear Derating Factor, Junction-to-Ambient	.020	.015	W/ $^\circ\text{C}$
R_{thJA} Thermal Resistance, Junction-to-Ambient (Free Air Operation)	50	65	$^\circ\text{C/W}$
Linear Derating, Junction-to-Case	0.8	0.8	W/ $^\circ\text{C}$

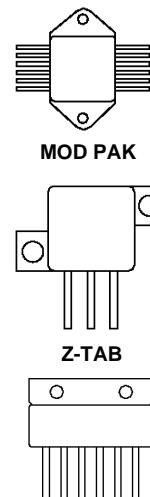
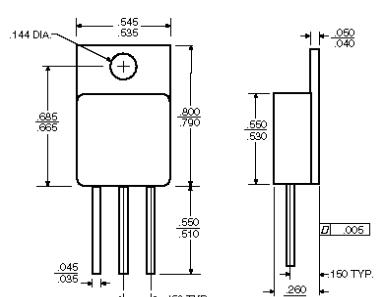
3.1

PACKAGE OPTIONS

T-3 MECHANICAL OUTLINE



M-PAK MECHANICAL OUTLINE



Notes:

- Standard Products are supplied with glass feedthroughs. For ceramic feedthroughs, add the letter "C" to the part number. Example - OMXXXXCSA.
- MOSFETs are also available in Z-Pak, dual and quad pak styles. Please call the factory for more information.

6 PIN SIP

OM60N06SA ($T_C = 25^\circ\text{C}$ unless otherwise specified)

Avalanche Characteristics				Min.	Typ.	Max.	Units	Test Conditions	Min.	Typ.	Max.	Units	Test Conditions	
I_{AP} Avalanche Current		55	A	(repetitive or non-repetitive, $T = 25^\circ\text{C}$)					50	A	(repetitive or non-repetitive, $T = 25^\circ\text{C}$)			
E_{IS} Single Pulse Avalanche Energy		520	mJ	(starting $T_J = 25^\circ\text{C}$, $I_D = I_{\text{AP}}$, $V_{\text{DD}} = 25\text{ V}$)					400	mJ	(starting $T_J = 25^\circ\text{C}$, $I_D = I_{\text{AP}}$, $V_{\text{DD}} = 25\text{ V}$)			
E_{RR} Repetitive Avalanche Energy		130	mJ	(pulse with limited ΔV_{DD} , $T_{\text{Jmax}} \leq 100^\circ\text{C}$, $\delta < 1\%$)					100	mJ	(pulse with limited ΔV_{DD} , $\delta < 1\%$)			
I_{AR} Avalanche Current		34	A	(repetitive or non-repetitive, $T_J = 100^\circ\text{C}$)					30	A	(repetitive or non-repetitive, $T_J = 100^\circ\text{C}$)			
Electrical Characteristics - OFF				Electrical Characteristics - OFF										
$V_{\text{BR}(\text{SS})}$ Drain-Source Breakdown Voltage	60		V	$I_D = 250\text{ }\mu\text{A}$, $V_{\text{DS}} = 0$					60		V	$I_D = 250\text{ }\mu\text{A}$, $V_{\text{DS}} = 0$		
I_{BS} Zero Gate Voltage Drain Current ($V_{\text{DS}} = 0$)		250	μA	$V_{\text{DS}} = \text{Max. Rat.}$, $V_{\text{G}} = \text{Max. Rat.} \times 0.8$, $T_C = 125^\circ\text{C}$					250	μA	$V_{\text{DS}} = \text{Max. Rat.}$, $V_{\text{G}} = \text{Max. Rat.} \times 0.8$, $T_C = 125^\circ\text{C}$			
I_{GS} Gate-Body leakage Current ($V_{\text{DS}} = 0$)		100	nA	$V_{\text{DS}} = \pm 20\text{ V}$					± 100	nA	$V_{\text{DS}} = \pm 20\text{ V}$			
Electrical Characteristics - ON*				Electrical Characteristics - ON*										
$V_{\text{GS(th)}}$ Gate Threshold Voltage	2		V	$V_{\text{DS}} = V_{\text{GS}} + I_D = 250\text{ }\mu\text{A}$, $V_{\text{DD}} = 10\text{ V}$, $I_D = 30\text{ A}$					2		4	V	$V_{\text{DS}} = V_{\text{GS}} + I_D = 250\text{ }\mu\text{A}$	
$R_{\text{DS(on)}}$ Static Drain-Source On Resistance		.025	Ω	$V_{\text{DS}} = 10\text{ V}$, $I_D = 30\text{ A}$.028	Ω	$V_{\text{DS}} = 10\text{ V}$, $I_D = 25\text{ A}$			
$I_{\text{DS(on)}}$ On-State Drain Current	55		A	$V_{\text{DS}} > I_{\text{DS(on)}} \times R_{\text{DS(on)}}$, $V_{\text{GS}} = 10\text{ V}$.066	Ω	$T_C = 100^\circ\text{C}$			
Electrical Characteristics - Dynamic				Electrical Characteristics - Dynamic										
Q_{S} Forward Transconductance	16	2500	S	$V_{\text{DS}} = V_{\text{GS}} + I_D = 250\text{ }\mu\text{A}$, $V_{\text{DD}} = 25\text{ V}$, $I_D = 50\text{ A}$					2000		S	$V_{\text{DS}} = V_{\text{GS}} + I_D = 250\text{ }\mu\text{A}$		
C_{GS} Input Capacitance		950	pF	$V_{\text{DS}} = 0$					1000	pF	$V_{\text{DS}} = 25\text{ V}$			
C_{DS} Output Capacitance		250	pF	$f = 1\text{ mHz}$					300	pF	$V_{\text{GS}} = 0$			
C_{DSs} Reverse Transfer Capacitance											$f = 1\text{ mHz}$			
Electrical Characteristics - Switching On				Electrical Characteristics - Switching On										
$T_{\text{t(on)}}$ Turn-On Time		110	rS	$V_{\text{DD}} = 25\text{ V}$, $I_D = 55\text{ A}$					45		nS	$V_{\text{DD}} = V_{\text{GS}} + R_{\text{DS(on)}}$, $I_D = 25\text{ A}$		
t_{rise} Fall Time		300	rS	$R_{\text{G}} = 50\text{ }\Omega$, $V_{\text{GS}} = 10\text{ V}$					90		nS	$R_{\text{G}} = 4.7\text{ }\Omega$, $V_{\text{GS}} = 10\text{ V}$		
$(dI/I)_{\text{on}}$ Turn-On Current Slope		160	A μS	$A_{\text{DS}} = 40$, $I_D = 55\text{ A}$					200	A μS	$A_{\text{DS}} = 40$, $I_D = 50\text{ A}$			
Q_0 Total Gate Charge		65	rC	$V_{\text{DD}} = 25\text{ V}$, $I_D = 30\text{ A}$, $V_{\text{GS}} = 10\text{ V}$							$R_{\text{G}} = 50\text{ }\Omega$, $V_{\text{GS}} = 10\text{ V}$			
Electrical Characteristics - Switching Off				Electrical Characteristics - Switching Off										
$t_{\text{f(on)}}$ Off Voltage Rise Time		160	rS	$V_{\text{DD}} = 40\text{ V}$, $I_D = 55\text{ A}$					160		nS	$V_{\text{DD}} = 40\text{ V}$, $I_D = 50\text{ A}$		
t_{fall} Fall Time		320	rS	$R_{\text{G}} = 50\text{ }\Omega$, $V_{\text{GS}} = 10\text{ V}$					90		nS	$R_{\text{G}} = 50\text{ }\Omega$, $V_{\text{GS}} = 10\text{ V}$		
t_{cross} Cross-Over Time		40	rS						250		nS			
Electrical Characteristics - Source Drain Diode				Electrical Characteristics - Source Drain Diode										
I_{SD} Source Drain Current		55	A						50	A				
$I_{\text{SD}*}$ Source Drain Current (pulsed)		200	A						200	A				
V_{SD} Forward On Voltage		1.6	V	$I_{\text{SD}} = 55\text{ A}$, $V_{\text{GS}} = 0$					2	V	$I_{\text{SD}} = 50\text{ A}$, $V_{\text{GS}} = 0$			
t_{f} Reverse Recovery Time		100	rS	$I_{\text{SD}} = -55\text{ A}$, $dI/dt = 100\text{ A}/\mu\text{s}$					150	nS	$I_{\text{SD}} = -50\text{ A}$, $dI/dt = 100\text{ A}/\mu\text{s}$			
Q_{f} Reverse Recovery Charge		25	μC	$V_E = 25\text{ V}$, $T_J = 150^\circ\text{C}$					4	μC				
I_{fR} Reverse Recovery Current		5	A											

*Pulse: Pulse Duration $\leq 300\text{ }\mu\text{s}$, Duty Cycle $\leq 1.5\%$.

OM60N06SA - OM50N05ST

3.1

OM50N06ST ($T_c = 25^\circ\text{C}$ unless otherwise specified)

Avalanche Characteristics						
I_{AP}	Avalanche Current	Min.	Typ.	Max.	Units	Test Conditions
E_{AS}	Single Pulse Avalanche Energy	50	A	(repetitive or non-repetitive, $T_j = 25^\circ\text{C}$)		
E_{AR}	Repetitive Avalanche Energy	400	mJ	(starting $T_j = 25^\circ\text{C}$, $I_b = I_{AS}, V_{DD} = 25\text{V}$)		
I_{AP}	Avalanche Current	400	nJ	(pulse width limited by T_{Jmax} , $\delta < 1\%$)		
I_{AP}	Avalanche Current	100	nJ	(repetitive or non-repetitive, $T_j = 100^\circ\text{C}$)		
Electrical Characteristics - OFF						
V_{GSoff}	Drain-Source Breakdown Voltage	60	V	$I_D = 250\text{ }\mu\text{A}, V_{SS} = 0$		
I_{BS}	Zero Gate Voltage Drain Current ($V_{SS} = 0$)	250	μA	$V_{GS} = \text{Max. Rat.}$		
I_{BS}	Gate-Body Leakage Current ($V_{GS} = 0$)	1000	μA	$V_{GS} = \text{Max. Rat.} \times 0.8, T_c = 125^\circ\text{C}$		
I_{BS}	Gate-Body Leakage Current ($V_{GS} = 0$)	±100	μA	$V_{GS} = \pm 20\text{V}$		
Electrical Characteristics - ON*						
V_{GSon}	Gate Threshold Voltage	2	V	$V_{GS} = V_{SS}, I_D = 250\text{ }\mu\text{A}$		
R_{DSon}	Static Drain-Source On Resistance	.063	Ω	$V_{GS} = 10\text{V}, I_D = 25\text{A}$		
I_{DSon}	On State Drain Current	.066	Ω	$T_c = 100^\circ\text{C}$		
I_{DSon}	On State Drain Current	50	A	$V_{GS} > I_{DSon} \times R_{DSon}, V_{SS} = 10\text{V}$		
Electrical Characteristics - Dynamic						
g_{ds}	Forward Transconductance	17	S	$V_{GS} > I_{DSon} \times R_{DSon}, I_D = 25\text{A}$		
C_{ies}	Input Capacitance	2000	pF	$V_{GS} = 25\text{V}$		
C_{oss}	Output Capacitance	1000	pF	$V_{GS} = 0$		
C_{res}	Reverse Transfer Capacitance	300	pF	$f = 1\text{mHz}$		
Electrical Characteristics - Switching On						
$t_{f(on)}$	Turn-On Time	45	nS	$V_{DD} = 25\text{V}, I_D = 29\text{A}$		
$t_{f(on)}$	Rise Time	90	nS	$R_G = 4.7\text{M}\Omega, V_{SS} = 10\text{V}$		
(d <i>I</i> / <i>dt</i>) _{on}	Turn-On Current Slope	200	$\mu\text{A/S}$	$V_{DD} = 40\text{V}, I_D = 50\text{A}$		
Q_u	Total Gate Charge	45	nC	$R_G = 50\text{M}\Omega, V_{SS} = 10\text{V}$		
Electrical Characteristics - Switching Off						
$t_{f(off)}$	Off Voltage Fall Time	160	nS	$V_{DD} = 40\text{V}, I_D = 50\text{A}$		
$t_{f(off)}$	Fall Time	90	nS	$R_G = 50\text{M}\Omega, V_{SS} = 10\text{V}$		
t_{cross}	Cross-Over Time	250	nS			
Electrical Characteristics - Source Drain Diode						
I_{SD}	Source Drain Current	50	A			
I_{SD}^*	Source Drain Current (pulsed)	200	A			
V_{SD}	Forward On Voltage	2	V	$I_{SD} = 50\text{A}, V_{SS} = 0$		
t_r	Reverse Recovery Time	150	nS	$I_{SD} = 50\text{A}, dI/dt = 100\text{ A}/\mu\text{s}$		
Q_r	Reverse Recovery Charge	0.2	μC	$V_R = 30\text{V}, T_j = 150^\circ\text{C}$		
I_{Rpeak}	Reverse Recovery Current	4	A			

*Pulsed: Pulse Duration $\leq 300\text{ }\mu\text{s}$, Duty Cycle $\leq 1.5\%$.

OM60N05SA ($T_c = 25^\circ\text{C}$ unless otherwise specified)

Avalanche Characteristics						
I_{AP}	Avalanche Current	Min.	Typ.	Max.	Units	Test Conditions
E_{AS}	Single Pulse Avalanche Energy	400	nJ	(repetitive or non-repetitive, $T_j = 25^\circ\text{C}$)		
E_{AR}	Repetitive Avalanche Energy	100	nJ	(pulse width limited by T_{Jmax} , $\delta < 1\%$)		
I_{AP}	Avalanche Current	30	A	(repetitive or non-repetitive, $T_j = 100^\circ\text{C}$)		
Electrical Characteristics - OFF						
V_{GSoff}	Drain-Source Breakdown Voltage	50	V			
I_{BS}	Zero Gate Voltage Drain Current ($V_{SS} = 0$)	250	μA			
I_{BS}	Gate-Body Leakage Current ($V_{GS} = 0$)	1000	μA			
I_{BS}	Gate-Body Leakage Current ($V_{GS} = 0$)	±100	μA			
Electrical Characteristics - ON*						
V_{GSon}	Gate Threshold Voltage	2	V	$V_{GS} = V_{SS}, I_D = 250\text{ }\mu\text{A}$		
R_{DSon}	Static Drain-Source On Resistance	.063	Ω	$V_{GS} = 10\text{V}, I_D = 30\text{A}$		
I_{DSon}	On State Drain Current	.066	Ω	$T_c = 100^\circ\text{C}$		
I_{DSon}	On State Drain Current	50	A	$V_{GS} > I_{DSon} \times R_{DSon}, V_{SS} = 10\text{V}$		
Electrical Characteristics - Dynamic						
g_{ds}	Forward Transconductance	16	S			
C_{ies}	Input Capacitance	2500	pF			
C_{oss}	Output Capacitance	950	pF			
C_{res}	Reverse Transfer Capacitance	250	pF	$f = 1\text{mHz}$		
Electrical Characteristics - Switching On						
$t_{f(on)}$	Turn-On Time	110	nS	$V_{DD} = 25\text{V}, I_D = 30\text{A}$		
$t_{f(on)}$	Rise Time	300	nS	$R_G = 50\text{M}\Omega, V_{SS} = 10\text{V}$		
(d <i>I</i> / <i>dt</i>) _{on}	Turn-On Current Slope	160	$\mu\text{A/S}$	$V_{DD} = 40\text{V}, I_D = 30\text{A}$		
Q_u	Total Gate Charge	65	nC	$R_G = 50\text{M}\Omega, V_{SS} = 10\text{V}$		
Electrical Characteristics - Switching Off						
$t_{f(off)}$	Off Voltage Fall Time	160	nS	$V_{DD} = 40\text{V}, I_D = 30\text{A}$		
$t_{f(off)}$	Fall Time	160	nS	$R_G = 50\text{M}\Omega, V_{SS} = 10\text{V}$		
t_{cross}	Cross-Over Time	320	nS			
Electrical Characteristics - Source Drain Diode						
I_{SD}	Source Drain Current	55	A			
I_{SD}^*	Source Drain Current (pulsed)	200	A			
V_{SD}	Forward On Voltage	1.6	V			
t_r	Reverse Recovery Time	100	nS			
Q_r	Reverse Recovery Charge	25	μC			
I_{Rpeak}	Reverse Recovery Current	5	A			

*Pulsed: Pulse Duration $\leq 300\text{ }\mu\text{s}$, Duty Cycle $\leq 1.5\%$.



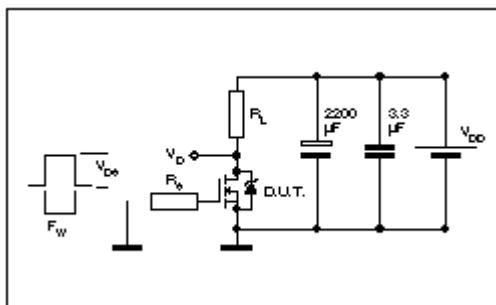
OM50N05SA ($T_c = 25^\circ\text{C}$ unless otherwise specified)OM50N05ST ($T_c = 25^\circ\text{C}$ unless otherwise specified)

Avalanche Characteristics		Min.	Typ.	Max.	Units	Test Conditions	Min.	Typ.	Max.	Units	Test Conditions
I_{AP} Avalanche Current		50	A	(repetitive or non-repetitive, $T_J = 25^\circ\text{C}$)			50	A	(repetitive or non-repetitive, $T_J = 25^\circ\text{C}$)		
E_{AS} Single Pulse Avalanche Energy		400	mJ				400	mJ			
E_{AP} Repetitive Avalanche Energy		100	mJ	$b = I_{AS} V_{DD} = 25\text{V}$, pulse width limited by T_{max} , $\delta < 1\%$			100	mJ			
I_{AP} Avalanche Current		30	A	(repetitive or non-repetitive, $T_J = 100^\circ\text{C}$)			30	A	(repetitive or non-repetitive, $T_J = 100^\circ\text{C}$)		
Electrical Characteristics - OFF											
V_{BSS}	Drain-Source Breakdown Voltage	50		V			50		V		
I_{BS}	Zero Gate Voltage Drain Current ($V_{GS} = 0$)	250	μA	$V_{GS} = \text{Max. Rat.}$			250	μA	$V_{GS} = \text{Max. Rat.}$		
I_{BS}	Gate-Body Leakage Current ($V_{GS} = 0$)	1000	μA	$V_{GS} = \text{Max. Rat.} \times 0.8$, $T_c = 125^\circ\text{C}$			1000	μA	$V_{GS} = \text{Max. Rat.} \times 0.8$, $T_c = 125^\circ\text{C}$		
I_{BS}	Gate-Body Leakage Current ($V_{GS} = 0$)	± 100	nA	$V_{GS} = \pm 20\text{V}$			± 100	nA	$V_{GS} = \pm 20\text{V}$		
Electrical Characteristics - ON*											
$V_{GS(th)}$	Gate Threshold Voltage	2		4	V	$V_{GS} = V_{DS(on)}, b = 250\text{ }\mu\text{A}$	2	4	V	$V_{GS} = V_{DS(on)}, b = 250\text{ }\mu\text{A}$	
$R_{DS(on)}$	Static Drain-Source On Resistance	0.28	Ω	$V_{GS} = 10\text{V}$, $I_D = 25\text{ A}$			0.033	Ω	$V_{GS} = 10\text{V}$, $I_D = 25\text{ A}$		
$I_{DS(on)}$	On State Drain Current	50		A			0.066	Ω	$T_c = 100^\circ\text{C}$		
Electrical Characteristics - Dynamic											
g_{fs}	Forward Transconductance	17		S			17		S		
C_{res}	Input Capacitance	2000	pF	$V_{GS} = 25\text{V}$			2000	pF	$V_{GS} = 25\text{V}$		
C_{oss}	Output Capacitance	1000	pF	$V_{GS} = 0$			1000	pF	$V_{GS} = 0$		
C_{res}	Reverse Transfer Capacitance	300	pF	$f = 1\text{ mHz}$			300	pF	$f = 1\text{ mHz}$		
Electrical Characteristics - Switching On											
t_{dyn}	Turn-On Time	45	ns	$V_{DD} = 25\text{V}$, $b = 25\text{A}$			45	ns	$V_{DD} = 25\text{V}$, $b = 25\text{A}$		
t_f	Rise Time	90	ns	$R_G = 4.7\text{ }\Omega$, $V_{GS} = 10\text{V}$			90	ns	$R_G = 4.7\text{ }\Omega$, $V_{GS} = 10\text{V}$		
$(dI/dt)_{on}$	Turn-On Current Slope	200	A/ μs	$V_{DD} = 40\text{V}$, $b = 50\text{A}$			200	A/ μs	$V_{DD} = 40\text{V}$, $b = 50\text{A}$		
Q_v	Total Gate Charge	45	nc	$R_G = 50\text{ }\Omega$, $V_{GS} = 10\text{V}$			45	nc	$R_G = 50\text{ }\Omega$, $V_{GS} = 10\text{V}$		
Electrical Characteristics - Switching Off											
t_{dyn}	Off Voltage Fall Time	160	ns	$V_{DD} = 40\text{V}$, $b = 50\text{A}$			160	ns	$V_{DD} = 40\text{V}$, $b = 50\text{A}$		
t_f	Fall Time	90	ns	$R_G = 50\text{ }\Omega$, $V_{GS} = 10\text{V}$			90	ns	$R_G = 50\text{ }\Omega$, $V_{GS} = 10\text{V}$		
t_{cross}	Cross-Over Time	250	ns				250	ns			
Electrical Characteristics - Source Drain Diode											
I_{SD}	Source Drain Current (pulsed)	50	A				50	A			
I_{SD}^*	Source Drain Current (pulsed)	200	A				200	A			
V_{SD}	Forward On Voltage	2	V	$I_S = 50\text{ A}$, $V_{GS} = 0$			2	V	$I_S = 50\text{ A}$, $V_{GS} = 0$		
t_r	Reverse Recovery Time	150	ns	$I_S = 50\text{ A}$, $dI/dt = 100\text{ A}/\mu\text{s}$			150	ns	$I_S = 50\text{ A}$, $dI/dt = 100\text{ A}/\mu\text{s}$		
Q_r	Reverse Recovery Charge	0.2	μC	$V_R = 30\text{V}$, $T_J = 150^\circ\text{C}$			0.2	μC	$V_R = 30\text{V}$, $T_J = 150^\circ\text{C}$		
I_{FR}	Reverse Recovery Current	4	A				4	A			

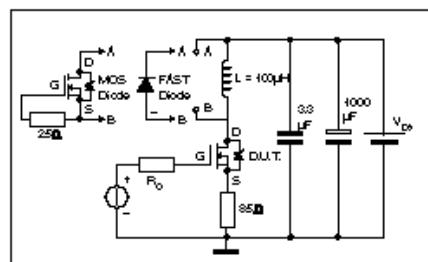
*Pulsed: Pulse Duration $\leq 300\text{ }\mu\text{s}$, Duty Cycle $\leq 15\%$.

OM60N06SA - OM50N05ST

**Switching Times Test Circuits
For Resistive Load**

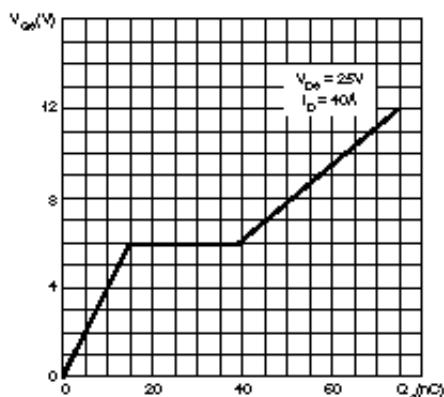


**Test Circuit For Inductive Load Switching
And Diode Reverse Recovery Time**

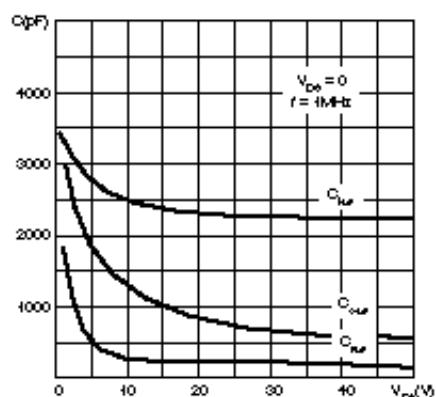


TYPICAL CHARACTERISTICS

Gate Charge vs Gate-Source Voltage

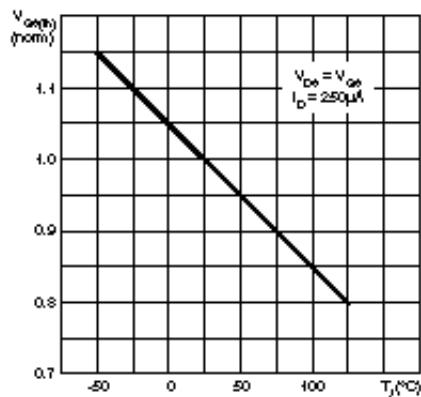


Capacitance Variations

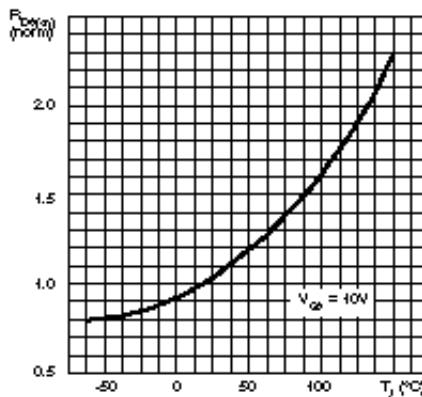


3.1

**Normalized Gate Threshold
Voltage vs Temperature**



**Normalized On Resistance
vs Temperature**



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