

Absolute maximum ratings

($T_a=25^\circ\text{C}$)

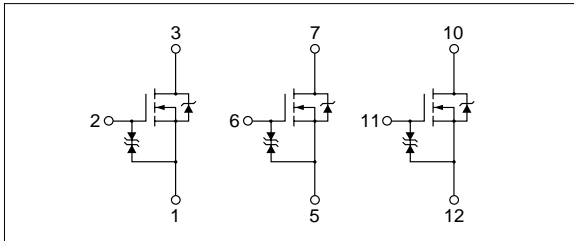
Symbol	Ratings	Unit
V_{DSS}	60	V
V_{GSS}	± 20	V
I_D	10	A
$I_D(\text{pulse})$	15 ($PW \leq 1\text{ms}, D \leq 25\%$)	A
P_T	4.5 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink)	W
	30 ($T_c=25^\circ\text{C}$, with all circuits operating, with infinite heatsink)	
θ_{j-a}	27.8 (Junction-Air, $T_a=25^\circ\text{C}$, with all circuits operating)	$^\circ\text{C/W}$
θ_{j-c}	4.17 (Junction-Case, $T_c=25^\circ\text{C}$, with all circuits operating)	$^\circ\text{C/W}$
V_{ISO}	1000 (Between fin and lead pin, AC)	V _{rms}
T_{ch}	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

($T_a=25^\circ\text{C}$)

Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	60			V	$I_D=100\mu\text{A}, V_{GS}=0\text{V}$
I_{GSS}			± 10	μA	$V_{GS}=\pm 20\text{V}$
I_{DSS}			100	μA	$V_{DS}=60\text{V}, V_{GS}=0\text{V}$
V_{TH}	1.0		2.0	V	$V_{DS}=10\text{V}, I_D=250\mu\text{A}$
$R_{e(yfs)}$		8.0		S	$V_{DS}=10\text{V}, I_D=5\text{A}$
$R_{DS(ON)}$			0.14	Ω	$V_{GS}=4\text{V}, I_D=5\text{A}$
C_{iss}		460		pF	$V_{DS}=10\text{V},$ $f=1.0\text{MHz},$ $V_{GS}=0\text{V}$
C_{oss}		225		pF	
C_{rss}		50		pF	
$td(\text{on})$		25		ns	$I_D=5\text{A}, V_{DD} \Rightarrow 20\text{V},$ $R_L=4\Omega,$ $V_{GS}=5\text{V},$ see Fig. 4 on page 16.
tr		110		ns	
$td(\text{off})$		90		ns	
tf		55		ns	
V_{SD}		1.15		V	
t_{rr}		75		ns	$I_{SD}=5\text{A}, di/dt=100\text{A}/\mu\text{s}$

Equivalent circuit diagram



Characteristic curves

