2SK3269

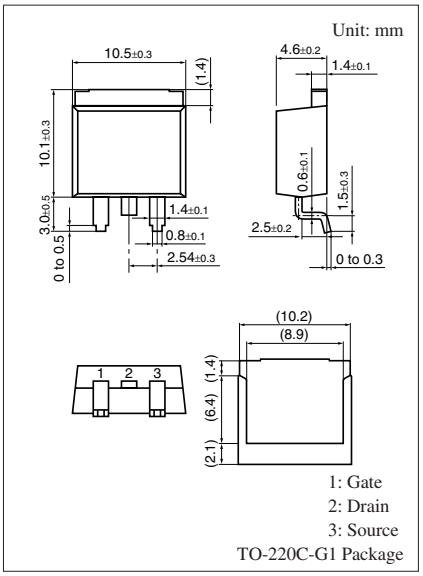
N-channel enhancement mode MOSFET

■ Features

- Low on-resistance, low Q_g
- High avalanche resistance

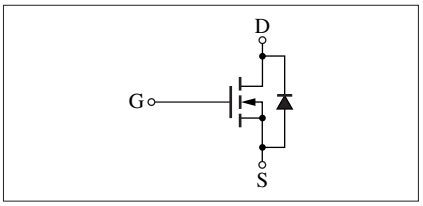
■ Applications

- For PDP
- For high-speed switching



Marking Symbol: K3269

Internal Connection



■ Absolute Maximum Ratings $T_C = 25°C$

Parameter	Symbol	Rating	Unit
Drain-source surrender voltage	V_{DSS}	100	V
Gate-source surrender voltage	V_{GSS}	±20	V
Drain current	I_D	±25	A
Peak drain current	I_{DP}	±100	A
Avalanche energy capability *	EAS	22.5	mJ
Power dissipation	P_D	40	W
$T_a = 25°C$		1.4	
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗: L = 0.2 mH, I_L = 15 A, 1 pulse

■ Electrical Characteristics $T_C = 25°C \pm 3°C$

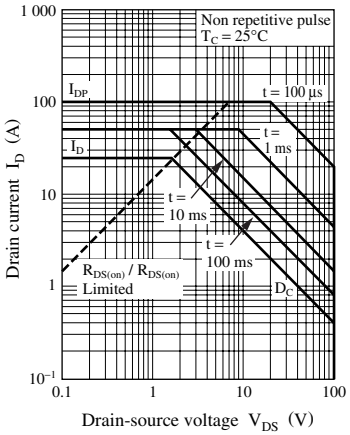
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source surrender voltage	V_{DSS}	I_D = 1 mA, V_{GS} = 0	100			V
Gate threshold voltage	V_{th}	V_{DS} = 10 V, I_D = 1 mA	2.0		4.0	V
Drain-source cutoff current	I_{DSS}	V_{DS} = 80 V, V_{GS} = 0			10	μA
Gate-source cutoff current	I_{GSS}	V_{GS} = ±20 V, V_{DS} = 0			±1	μA
Drain-source ON resistance	$R_{DS(on)}$	V_{GS} = 10 V, I_D = 12 A		70	100	mΩ
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS} = 10 V, I_D = 12 A	6	11		S
Short-circuit forward transfer capacitance (Common-source)	C_{iss}	V_{DS} = 10 V, V_{GS} = 0, f = 1 MHz		960		pF
Short-circuit output capacitance (Common-source)	C_{oss}			285		pF
Reverse transfer capacitance (Common-source)	C_{rss}			85		pF
Turn-on delay time	$t_{d(on)}$	V_{DD} = 30 V, I_D = 12 A		15		ns
Rise time	T_r	R_L = 2.5 Ω, V_{GS} = 10 V		10		ns
Turn-off delay time	$t_{d(off)}$			65		ns
Fall time	t_f			35		ns

■ Electrical Characteristics (continued) $T_C = 25°C \pm 3°C$

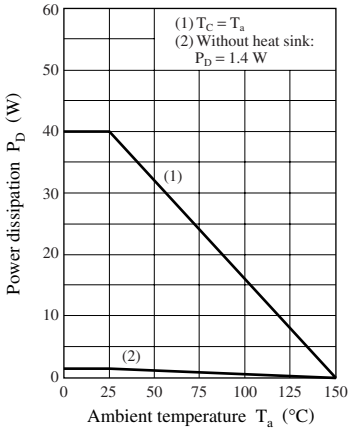
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Diode foward voltage	V_{DSF}	I_{DR} = 15 A, V_{GS} = 0			1.4	V
Thermal resistance (ch-c)	$R_{th(ch-c)}$				3.125	°C/W
Thermal resistance (ch-a)	$R_{th(ch-a)}$				89.3	°C/W

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

Safe operation area



P_D — T_a



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