2SK3268

Silicon N-channel power MOS FET

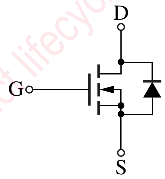
■ Features
- Avalanche energy capability guaranteed
- High-speed switching
- Low ON resistance R_{on}
- No secondary breakdown
- Low-voltage drive
- High electrostatic energy capability

■ Applications
- Non-contact relay
- Solenoid drive
- Motor drive
- Control equipment
- Switching mode regulator

■ Package
- Code
  U-DL
- Pin Name
  1: Gate
  2: Drain
  3: Source

■ Marking Symbol: K3268

■ 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	±15	A
Peak drain current	I_{DP}	±60	A
Avalanche energy capability *	EAS	22.5	mJ
Power dissipation	P_D	20	W
$T_a = 25°C$		1	
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

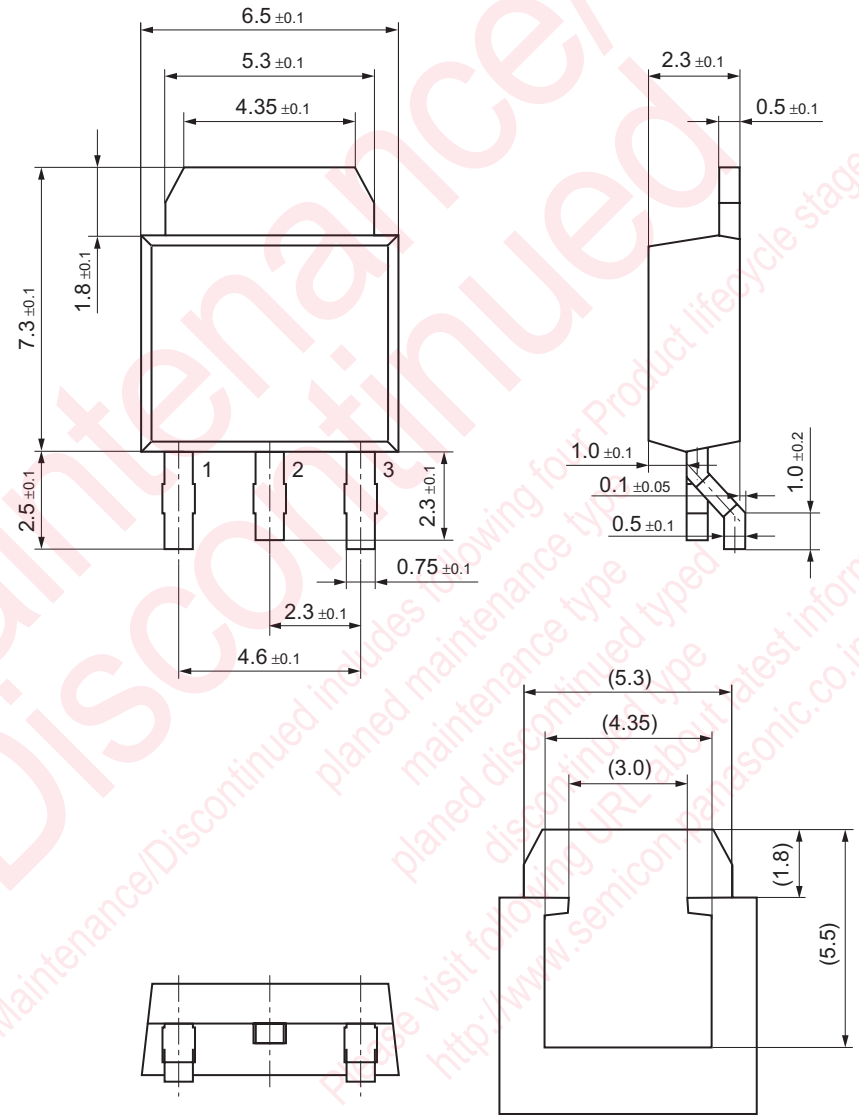
■ Electrical Characteristics $T_C = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source surrender voltage	V_{DSS}	$I_D = 1$ mA, $V_{GS} = 0$	100			V
Drain-source cutoff current	I_{DSS}	$V_{DS} = 80$ V, $V_{GS} = 0$			10	µA
Gate-source cutoff current	I_{GSS}	$V_{GS} = \pm 20$ V, $V_{DS} = 0$			±1	µA
Gate threshold voltage	V_{th}	$V_{DS} = 10$ V, $I_D = 1$ mA	2.0		4.0	V
Forward transfer admittance	$\lvert Y_{fs} \rvert$	$V_{DS} = 10$ V, $I_D = 12$ A	6	11		S
Drain-source ON resistance	$R_{DS(on)}$	$V_{GS} = 10$ V, $I_D = 12$ A		70	100	mΩ
Diode forward voltage	V_{DF}	$I_{DR} = 15$ A, $V_{GS} = 0$			−1.4	V
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, $R_L = 2.5$ Ω		15		ns
Rise time	t_r	$V_{GS} = 10$ V		10		ns
Fall time	t_f			35		ns
Turn-off delay time	$t_{d(off)}$			65		ns
Thermal resistance (ch-c)	$R_{th(ch-c)}$				6.25	°C/W
Thermal resistance (ch-a)	$R_{th(ch-a)}$				125	°C/W

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

U-DL

Unit: mm



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