2SK3277

Silicon N-channel power MOSFET

■ Features

- Avalanche energy capability guaranteed
- High-speed switching
- No secondary breakdown

Applications

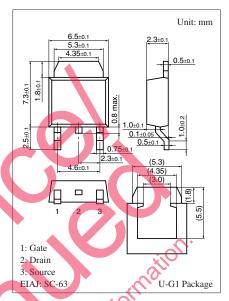
- Non-contact relay
- Solenoid drive
- Motor drive
- Control equipment
- Switching mode regulator

■ Absolute Maximum Ratings $T_C = 25$ °C

Parameter	Symbol	Rating	Unit	
Drain-source surrender voltage	V _{DSS}	200	V	
Gate-source surrender voltage	V _{GSS}	±20	V	
Drain current	I_{D}	±2.5	A	
Peak drain current	I_{DP}	±5	A	
Avalanche energy capability *	EAS	15	mJ	
Power dissipation	P _D	10	W	
$T_a = 25^{\circ}C$		1		
Channel temperature	T _{ch}	150	°C	
Storage temperature	T_{stg}	-55 to +150	°C	

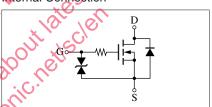
Note) *: L = 5 mH, $I_L = 2.5 \text{ A}$, 1 pulse					igstar	
■ Electrical Characteristics T	$_{\rm C} = 25^{\circ}{\rm C}$	±3°C / P2 / 1/10.			ŝ	
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Drain-source surrender voltage	$V_{ m DSS}$	$I_D = 1 \text{ mA}, V_{GS} = 0$	200			V
Drain-source cutoff current	I _{DSS}	$V_{DS} = 160 \text{ V}, V_{QS} = 0$			10	μΑ
Gate-source cutoff current	I _{GSS}	$V_{GS} = \pm 20 \text{ V}, V_{DS} = 0$			±10	μΑ
Gate threshold voltage	V _{th}	$V_{DS} = 25 \text{ V}, I_D = 1 \text{ mA}$	2.0		4.0	V
Drain-source ON resistance	R _{DS(on)}	$V_{GS} = 10 \text{ V}, I_D = 1.25 \text{ A}$		1.2	1.7	Ω
Forward transfer admittance	Y _{fs}	$V_{DS} = 25 \text{ V}, I_{D} = 1.25 \text{ A}$	0.7	1.3		S
Diode forward voltage	CV DF	$I_{DR} = 2.5 \text{ A}, V_{GS} = 0$			-1.4	V
Short-circuit forward transfer capacitance (Common source)	C _{iss}	$V_{DS} = 20 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$		170		pF
Short-circuit output capacitance (Common source)	C _{oss}			25		pF
Reverse transfer capacitance (Common source)	C _{rss}			15		pF
Turn-on delay time	t _{d(on)}	$V_{DD} = 100 \text{ V}, I_D = 1 \text{ A}, R_L = 100 \Omega$		18		ns
Rise time	t _r	$V_{GS} = 10 \text{ V}$		35		ns
Turn-off delay time	t _{d(off)}			200		ns
Fall time	$t_{\rm f}$			60		ns
Thermal resistance (ch-c)	R _{th(ch-c)}				12.5	°C/W
Thermal resistance (ch-a)	R _{th(ch-a)}				125	°C/W

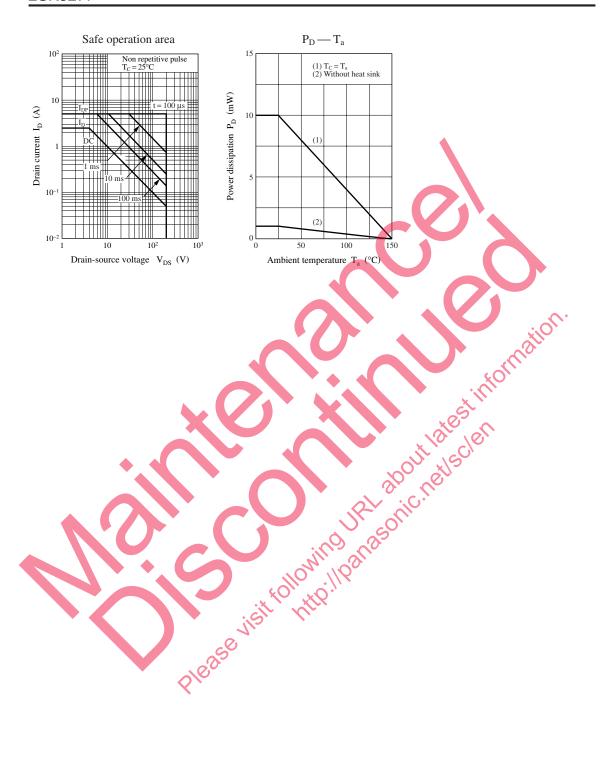
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.



Marking Symbol: K3277

Internal Connection





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