

isc N-Channel MOSFET Transistor

2SK604

FEATURES

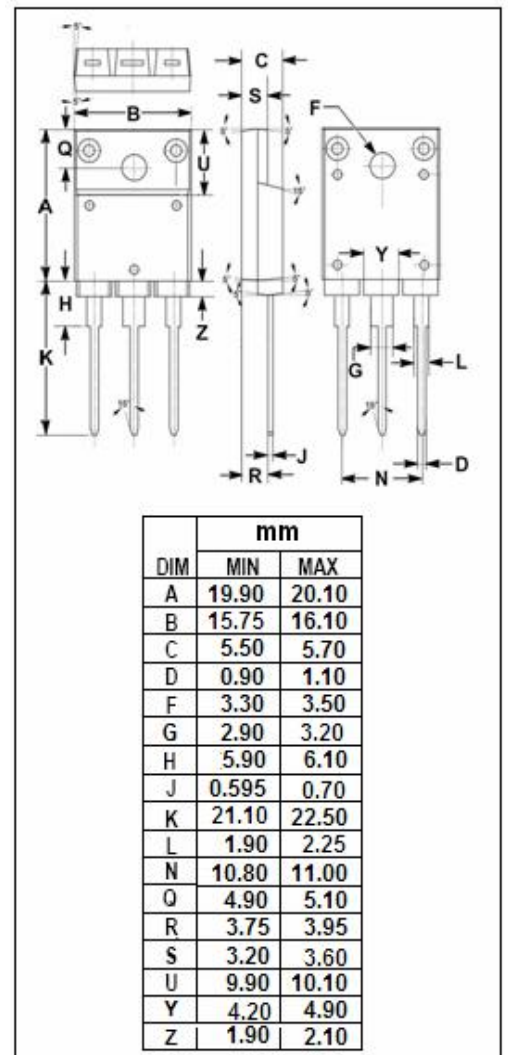
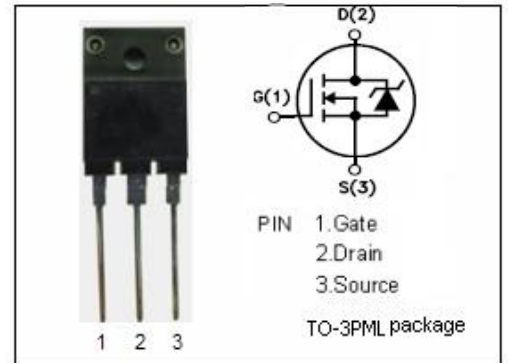
- Drain Current $-I_D=5A@ T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}= 800V(\text{Min})$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

- Designed especially for high voltage, high speed applications, such as off-line switching power supplies , UPS, AC and DC motor controls, relay and solenoid drivers.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	800	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	5	A
P_D	Total Dissipation @ $T_C=25^\circ C$	80	W
T_J	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 1mA	800			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 1mA	1.0		5.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 15V; I _D = 5A			3.5	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 640V; V _{GS} =0			1	μA
V _{SD}	Forward On-Voltage	I _S = 5A; V _{GS} =0			1.4	V
t _r	Rise time	V _{GS} =10V; I _D =3A; R _L =50 Ω		130	200	ns
t _{on}	Turn-on time			155	240	ns
t _f	Fall time			130	175	ns
t _{off}	Turn-off time			530	705	ns