

### INCHANGE SEMICONDUCTOR

# isc N-Channel MOSFET Transistor

## 2SK556

### DESCRIPTION

- Drain Current –I\_D=12A@ T\_C=25 $^\circ\!\!\mathrm{C}$
- Drain Source Voltage-: V<sub>DSS</sub>=450V(Min)
- · Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

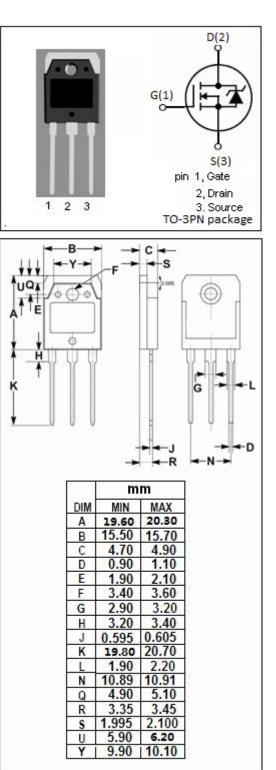
• Designed especially for high voltage, high speed applications, such as off-line switching power supplies, UPS, AC and DC motor controls, relay and solenoid drivers.

#### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	ARAMETER	VALUE	UNIT	
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	450	V	
V <sub>GS</sub>	Gate-Source Voltage ±20			
ID	Drain Current-continuous@ TC=25°C	12	А	
P <sub>tot</sub>	Total Dissipation@TC=25°C	100	W	
Tj	Max. Operating Junction Temperature	150	°C	
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C	

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT	
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.25	°C/W	





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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0; I <sub>D</sub> = 10mA	450			V
V <sub>GS(TH)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> = 1mA	2.0		4.0	V
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =6A		0.4	0.55	Ω
Vsd	Diode Forward Voltage	I <sub>F</sub> = 12A; V <sub>GS</sub> =0		1.0		V
I <sub>GSS</sub>	Gate Source Leakage Current	$V_{GS}$ = ±16V; $V_{DS}$ = 0			±10	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =360V; V <sub>GS</sub> = 0			250	uA

### • ELECTRICAL CHARACTERISTICS (Tc=25°C)

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