

# isc N-Channel MOSFET Transistor

## SiHG30N60E

#### • FEATURES

- · Drain Source Voltage-
  - : V<sub>DSS</sub>= 600V(Min)
- Static drain-source on-resistance: R<sub>DS</sub>(on) ≤125mΩ@V<sub>GS</sub>=10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATION



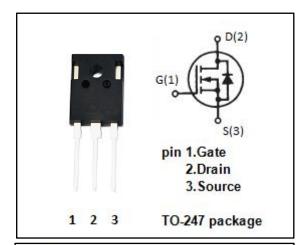
- Switch Mode Power Supplies
- Power Factor Correction Power Supplies

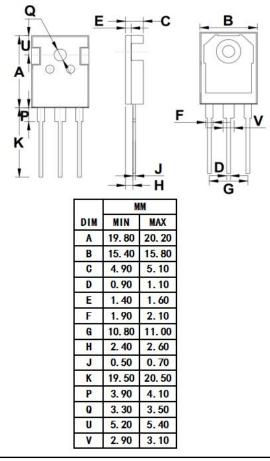
### • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	600	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-Continuous	29	А
I <sub>DM</sub>	Drain Current-Single Pulsed 65		А
P <sub>D</sub>	Total Dissipation @Tc=25°C	250	W
Tj	Operating Junction Temperature	-55~150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature	rage Temperature -55~150	

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Junction-to-case thermal resistance	0.5	°C/W







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#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; ID =250 μ A	600		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; ID =250 μ A	2	4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =15A		125	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> =0V		±100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 600V; V <sub>GS</sub> = 0V		1	μ А
		V <sub>DS</sub> = 600V; V <sub>GS</sub> = 0V;T <sub>J</sub> =150°C		100	
V <sub>SD</sub>	Diode forward voltage	I <sub>F</sub> = 15A; V <sub>GS</sub> = 0V		1.3	V



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