

isc N-Channel MOSFET Transistor

SiHG30N60E

• FEATURES

- Drain Source Voltage-
: $V_{DSS} = 600V(\text{Min})$
- Static drain-source on-resistance:
 $R_{DS(on)} \leq 125m\Omega @ V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATION

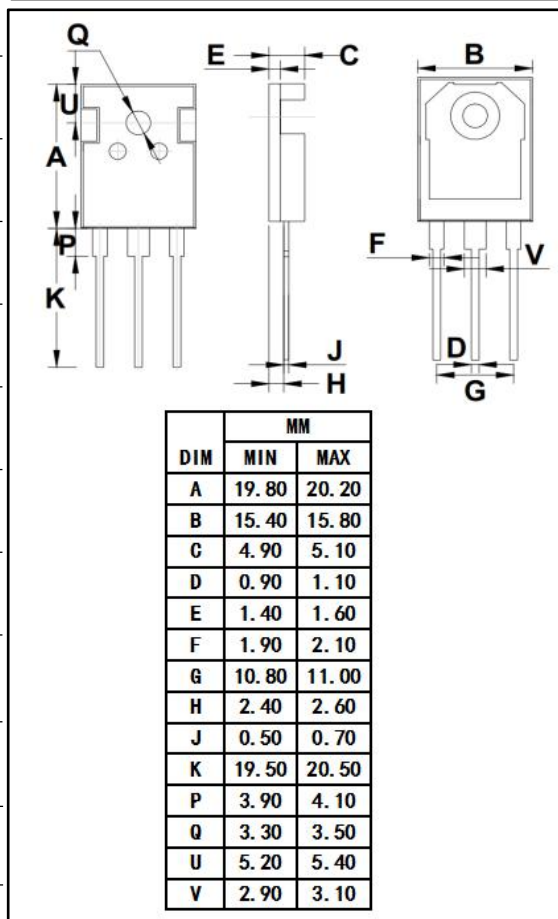
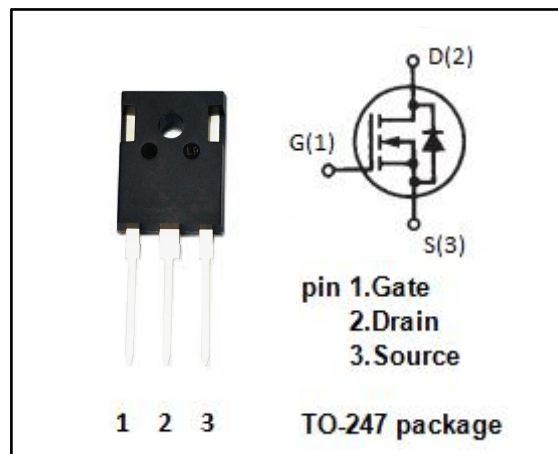
- Switch Mode Power Supplies
- Power Factor Correction Power Supplies

• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	29	A
I_{DM}	Drain Current-Single Pulsed	65	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	250	W
T_j	Operating Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

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



isc N-Channel MOSFET Transistor**SiHG30N60E****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V$; $I_D=250\ \mu A$	600		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=250\ \mu A$	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V$; $I_D=15A$		125	$m\Omega$
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 20V$; $V_{DS}=0V$		± 100	nA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=600V$; $V_{GS}=0V$		1	μA
		$V_{DS}=600V$; $V_{GS}=0V$; $T_J=150^{\circ}\text{C}$		100	
V_{SD}	Diode forward voltage	$I_F=15A$; $V_{GS}=0V$		1.3	V

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