

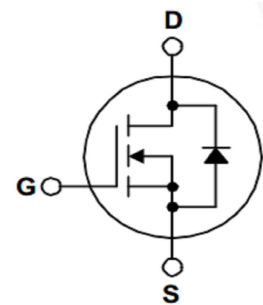
Silicon N-Channel Power MOSFET

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 2.6m\Omega$
- Enhancement mode:
 $V_{th} = 2.0 \text{ to } 4.0 \text{ V } (V_{DS}=V_{GS}, I_D=250 \mu\text{A})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

- High Efficiency Synchronous Rectification in SMPS
- Uninterruptible Power Supply
- High Speed Power Switching
- Hard Switched And High Frequency Circuits



• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	100	V
V _{GS}	Gate-Source Voltage	±20	V
I _D	Drain Current-Continuous	195	A
I _{DM}	Drain Current-Single Pulsed	1120	A
P _D	Total Dissipation @T _C =25°C	520	W
T _j	Max. Operating Junction Temperature	175	°C
T _{stg}	Storage Temperature	-55~175	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th(j-c)}	Channel-to-case thermal resistance	0.29	°C/W
R _{th(j-a)}	Channel-to-ambient thermal resistance	40	°C/W

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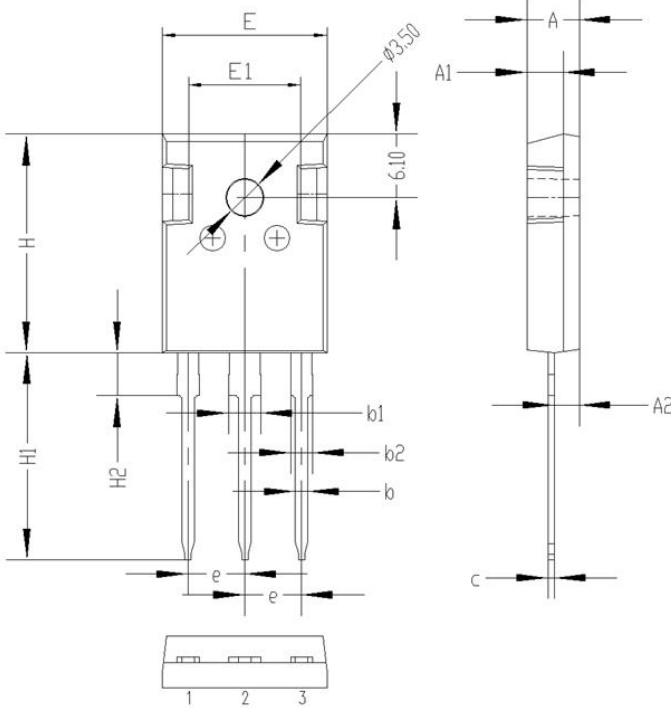
ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D =250 μ A	100			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =250 μ A	2.0		4.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =180A			2.6	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V			±0.1	μ A
I _{DSS}	Drain-Source Leakage Current	V _{DS} =100V; V _{GS} = 0V			20	μ A
V _{SD}	Diode forward voltage	I _S =180A, V _{GS} = 0V			1.3	V

Package Information

TO-247 PACKAGE



Symbol	Dimensions(millimeters)	
	Min.	Max.
A	4.80	5.20
A1	3.30	3.70
A2	2.10	2.50
b	1.00	1.40
b1	2.90	3.30
b2	1.90	2.30
c	0.40	0.80
e	5.25	5.65
E	15.6	16.0
E1	10.6	11.00
H	20.8	21.2
H1	19.4	20.4
H2	3.90	4.30
G	5.90	6.30
ϕP	3.30	3.70