

General Purpose Rectifier

Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

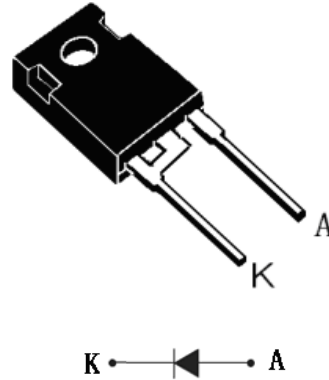
Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 265 °C max.10 s, per JESD 22-B106

Mechanical Data

- Package:TO-247-2L
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity:Color band denotes cathode end

TO-247-2L



Maximum Ratings (Ta=25 °C Unless otherwise specified)

PARAMETER	Symbol	Unit	MGR6016PT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	1600
Maximum RMS Voltage	V _{RMS}	V	1120
Maximum DC blocking Voltage	V _{DC}	V	1600
Average Forward Current @Half-sine wave, Resistance load With heatsink T _c =90°C	I _o	A	60
Average Forward Current @Half-sine wave, Resistance load Without heatsink T _c =25°C			15
Forward Surge Current (Non-repetitive) @50HZ sine wave, 1 cycle, Ta=25°C	I _{FSM}	A	800
Current squared time @1ms≤t10≤ms Ta=25°C, Rating of per diode	I ² t	A ² s	3200
Thermal Resistance(Typical) @Between junction and case	R _{θj-c}	°C/W	0.35
Storage Temperature	T _{stg}	°C	-55 ~ +150
Junction Temperature	T _j	°C	-55 ~ +150

Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	MGR6016PT
Peak Forward Voltage	V _{FM}	V	I _F =60.0A	1.2
Peak Reverse Current	I _{RRM}	μA	VR =V _{DC} @Ta=25°C	5
			VR =V _{DC} @Ta=125°C	500

RATING AND CHARACTERISTICS CURVES (MGR6016PT)

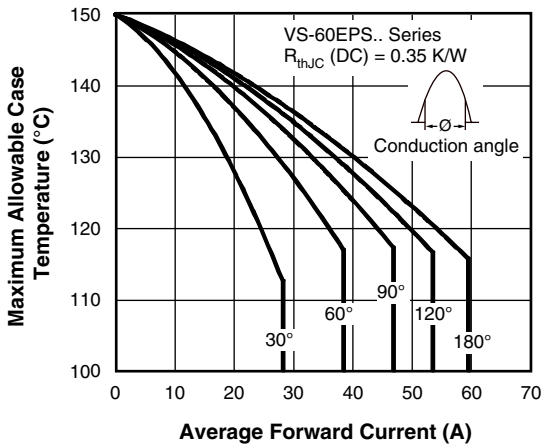


Fig. 1 - Current Rating Characteristics

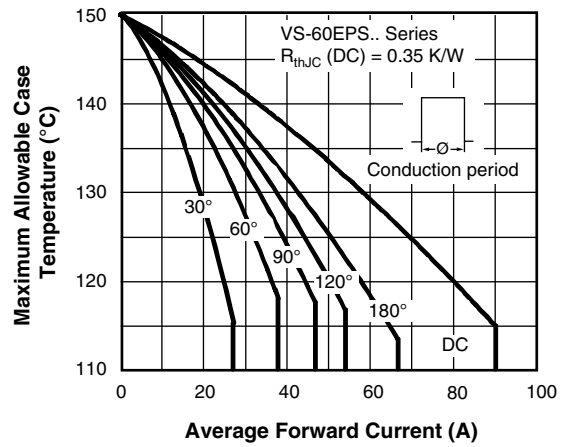


Fig. 2 - Current Rating Characteristics

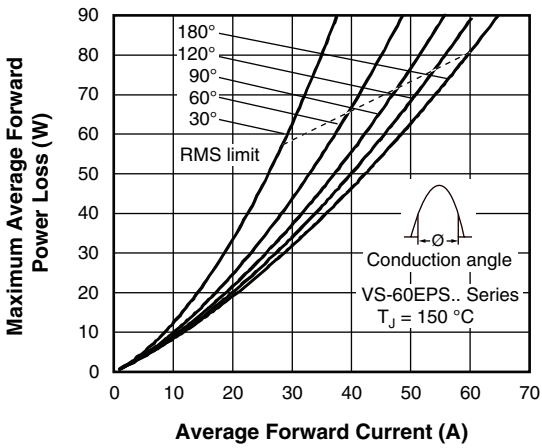


Fig. 3 - Forward Power Loss Characteristics

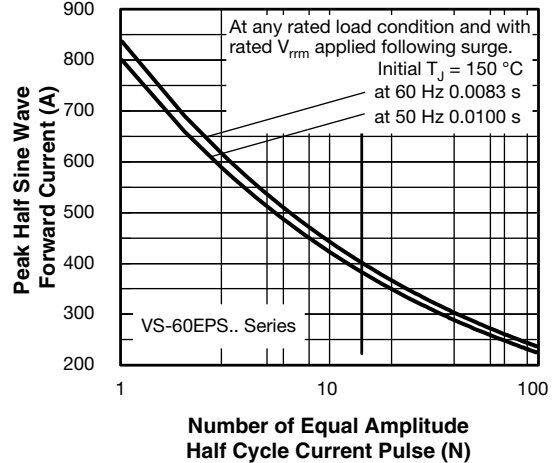


Fig. 5 - Maximum Non-Repetitive Surge Current

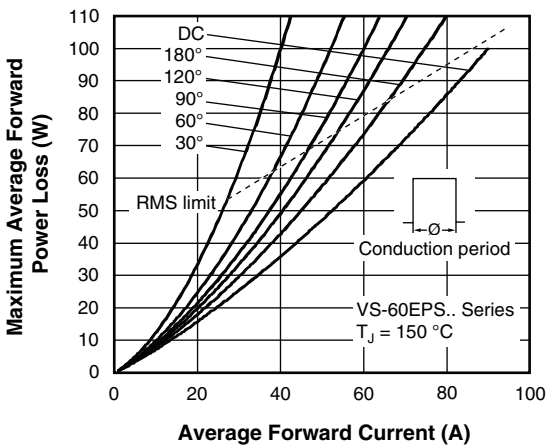


Fig. 4 - Forward Power Loss Characteristics

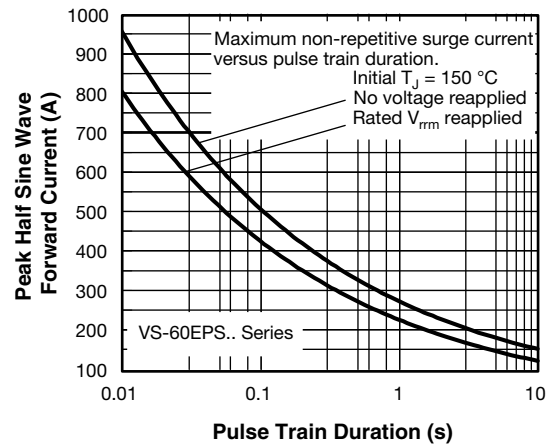


Fig. 6 - Maximum Non-Repetitive Surge Current

RATING AND CHARACTERISTICS CURVES (MGR6016PT)

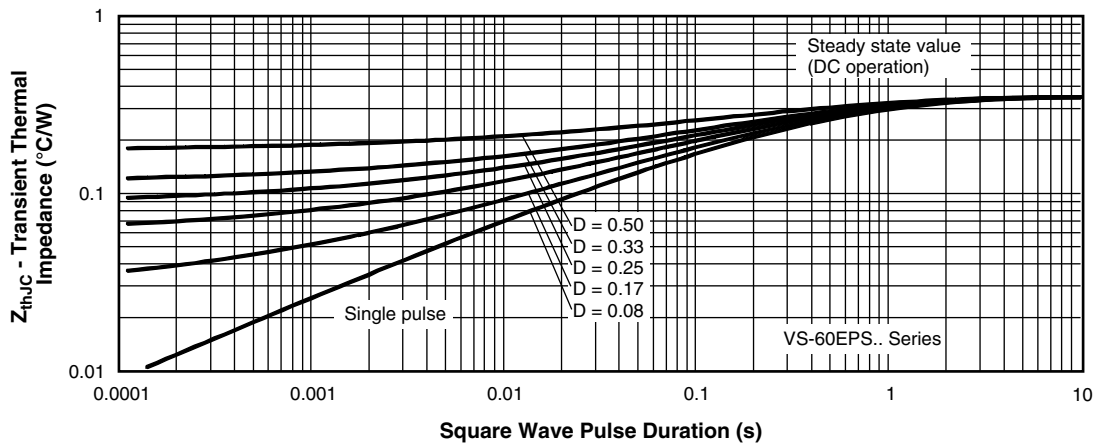
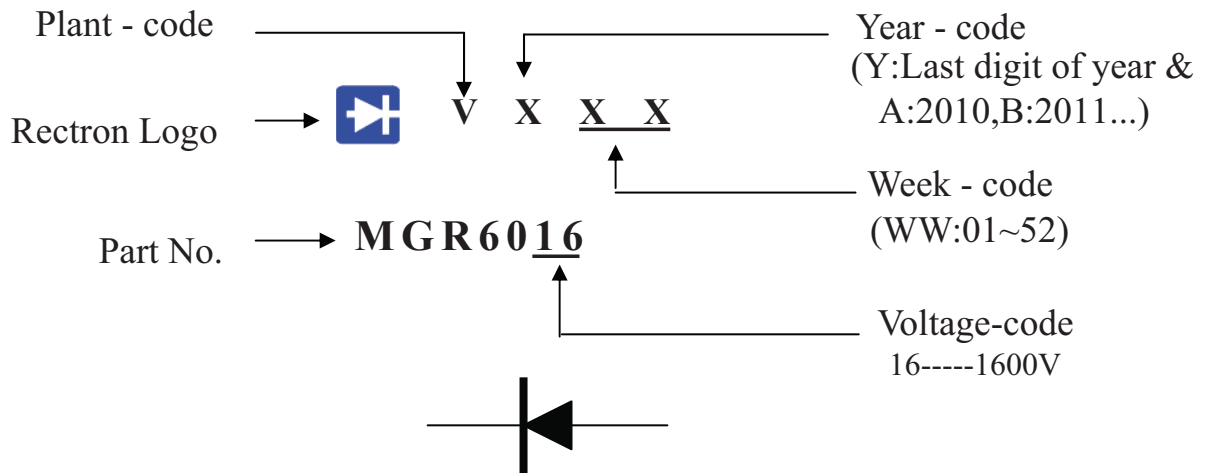


Fig. 8 - Thermal Impedance Z_{thJC} Characteristics

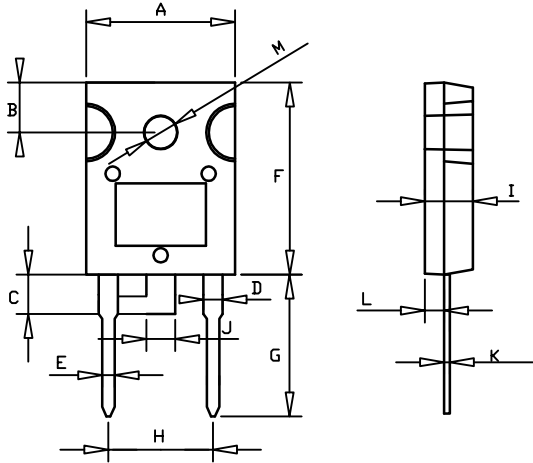
Marking Description



OutlineDimensions

PACKAGE OUTLINE DIMENSIONS

T□-247-2L



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	15.35	15.65	0.604	0.616
B	4.9	5.4	0.192	0.212
C	3.8	4.5	0.149	0.177
D	1.9	2.1	0.074	0.082
E	1.15	1.45	0.045	0.057
F	19.85	20.15	0.781	0.793
G	14.32	14.80	0.563	0.582
H	10.81	11.09	0.420	0.436
I	4.85	5.15	0.190	0.202
J	2.85	3.15	0.112	0.124
K	0.53	0.68	0.020	0.026
L	1.8	2.21	0.070	0.087
M	3.15	3.8	0.124	0.149

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
TO-247-2L	-C	600	560*155*55	570*284*185	3,000	-----

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