

Features

- Halogen Free. "Green" Device (Note 1)
- Low Power Loss High Efficiency
- High Surge Capacity and High Current Capability
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 3°C/W Junction to Case

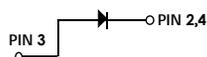
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRD1520	MBRD1520	20V	14V	20V
MBRD1530	MBRD1530	30V	21V	30V
MBRD1540	MBRD1540	40V	28V	40V
MBRD1545	MBRD1545	45V	31.5V	45V
MBRD1550	MBRD1550	50V	35V	50V
MBRD1560	MBRD1560	60V	42V	60V
MBRD1580	MBRD1580	80V	56V	80V
MBRD15100	MBRD15100	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	15A	$T_C=115^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, Half Sine
Maximum Forward Voltage Drop Per Element	V_F	MBRD1520-1545 0.63V	$I_{FM}=15\text{ A}$ $T_J=25^\circ\text{C}$
MBRD1550-1560		0.75V	
MBRD1580-15100		0.84V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.1mA	$T_J=25^\circ\text{C}$

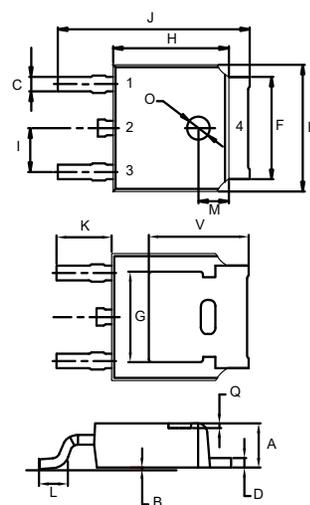
- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High temperature solder exemption applied, see EU directive annex 7a.

Internal Structure



15 Amp Schottky Barrier Rectifier 20 to 100 Volts

(TO-252) DPAK



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

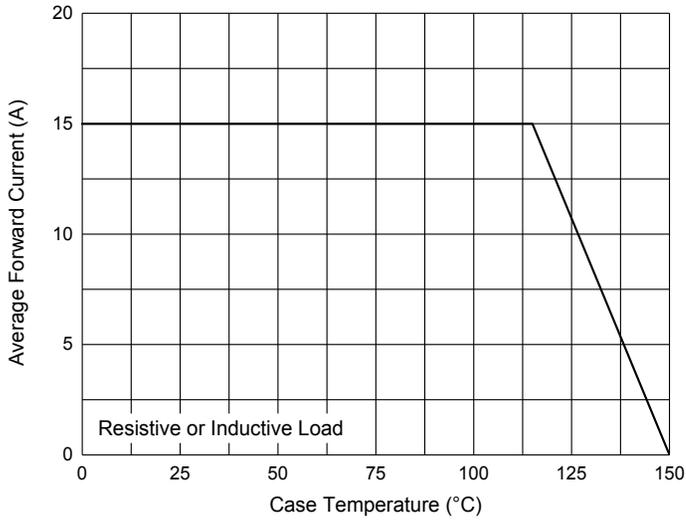


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

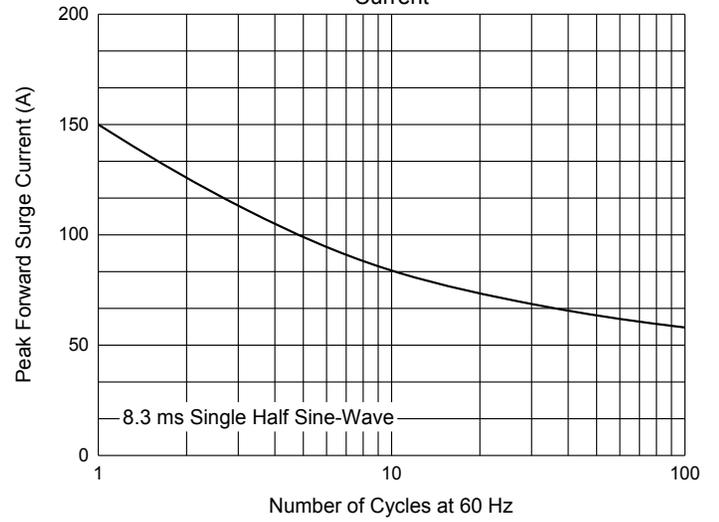


Fig. 3 - Typical Instantaneous Forward Characteristics

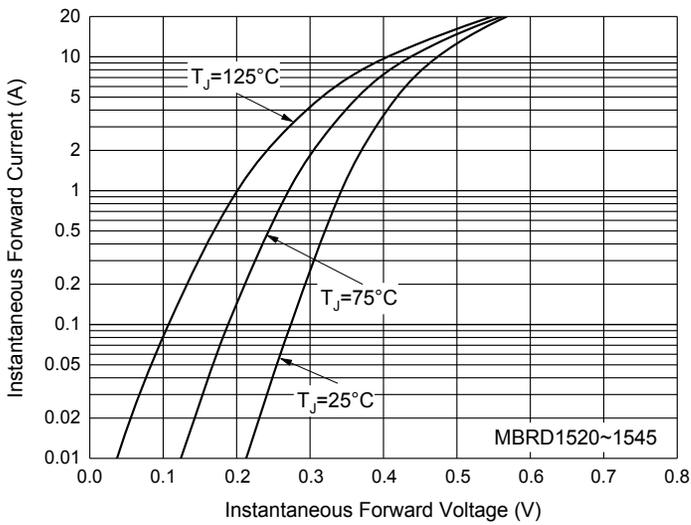
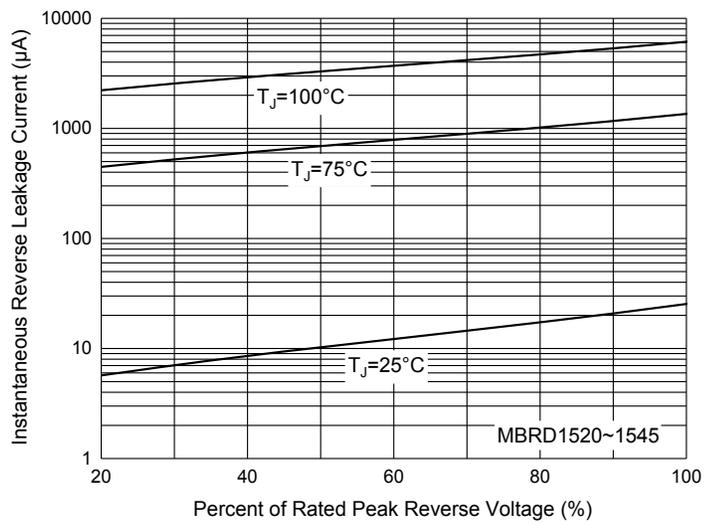


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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