



Micro Commercial Components



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MBR870 Thru MBR8100

Features

- High Current Capability, Low VF
- Low Power Loss, High Efficiency
- Guard Ring for Transient Protection
- Marking : type number
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings

- Halogen free available upon request by adding suffix "-HF"
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C
- Maximum Thermal Resistance: $R_{\theta JC} = 2.0^{\circ}\text{C/W}$ junction to case

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR870	70V	49V	70V
MBR880	80V	56V	80V
MBR890	90V	63V	90V
MBR8100	100V	70V	100V

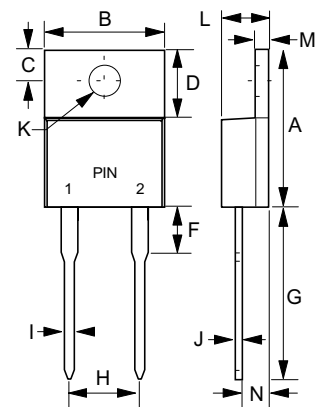
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	8A	$T_C = 110^{\circ}\text{C}$
Peak Forward Surge Current	I_{FSM}	125A	8.3ms, half sine
Voltage Rate of Change	dv/dt	10000	Rated V_R
Maximum Instantaneous Forward Voltage	V_F	.85V .75V .95V .85V	$I_{FM} = 8A @ T_J = 25^{\circ}\text{C}$ $I_{FM} = 8A @ T_J = 125^{\circ}\text{C}$ $I_{FM} = 16A @ T_J = 25^{\circ}\text{C}$ $I_{FM} = 16A @ T_J = 125^{\circ}\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.15mA 100mA	$T_J = 25^{\circ}\text{C}$ $T_J = 125^{\circ}\text{C}$
Typical Junction Capacitance	C_J	280pF	Measured at 1.0MHz, $V_R = 4.0V$

Notes:1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

8 Amp Schottky Rectifier 70-100 Volts

TO-220AC



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.190	.210	4.83	5.33	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	Ø
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	

MBR870 THRU MBR8100



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FIG.1 - FORWARD CURRENT DERATING CURVE

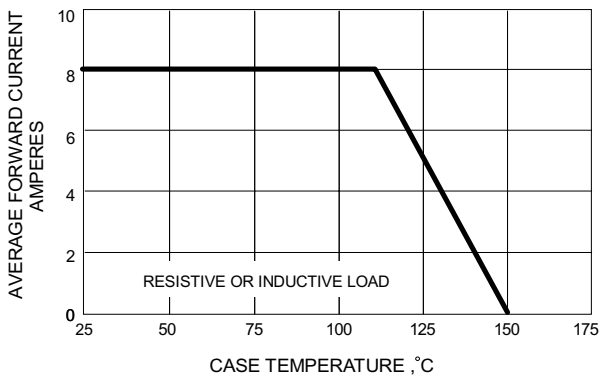


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

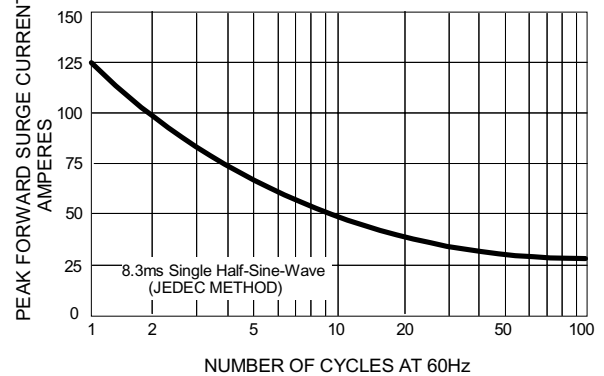


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

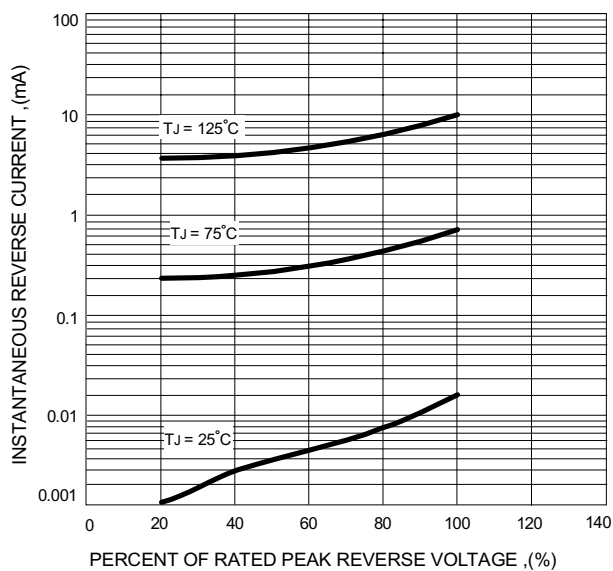


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

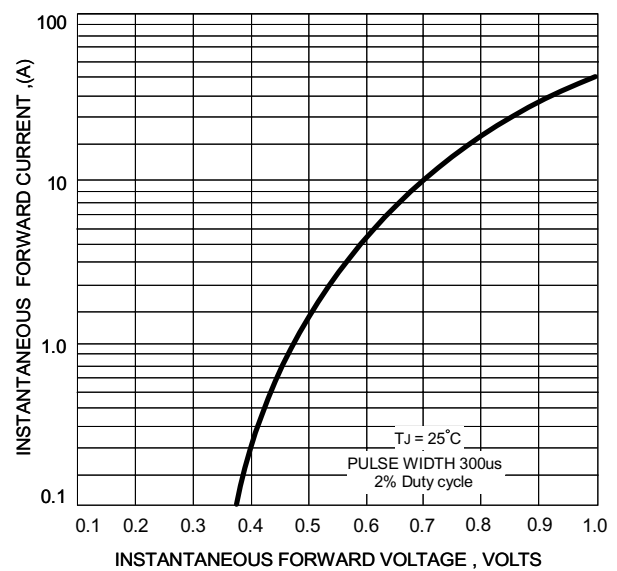
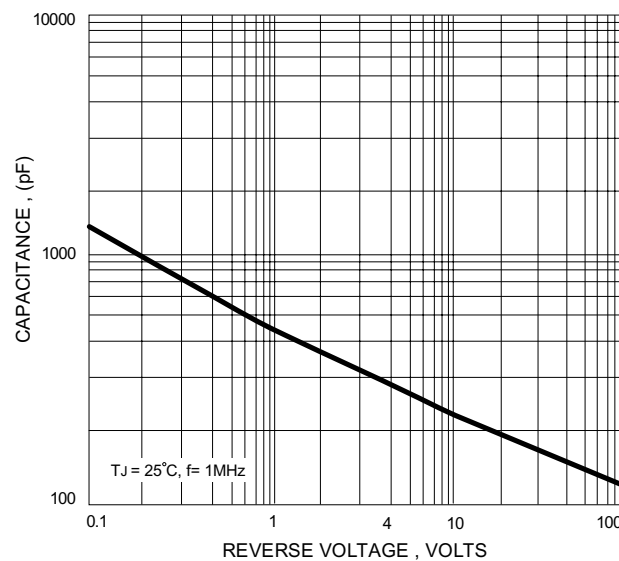


FIG.5 - TYPICAL JUNCTION CAPACITANCE



Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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