

MBR6040PT-MBR60200PT
60A SCHOTTKY BARRIER RECTIFIER



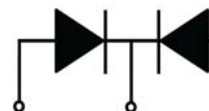
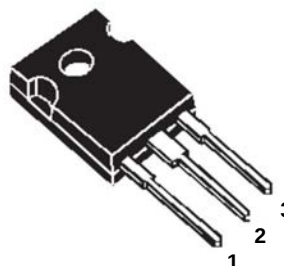
MBR6040PT-MBR60200PT

Features:

- ☐ Low power loss. high efficiency.
High surge capacity
- ☐ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ☐ Metal silicon junction, majority carrier conduction.
- ☐ High current Capability. low forward voltage drop.
- ☐ Guard ring for over voltage protection.



TO-247S



1. Anode 2. Cathode 3. Anode

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	MBR 6040 PT	MBR 6045 PT	MBR 6050 PT	MBR 6060 PT	MBR 6080 PT	MBR 6090 PT	MBR 60100 PT	MBR 60150 PT	MBR 60200 PT	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V _{RMS}	28	31.5	35	42	56	63	70	105	140	
Maximum DC Blocking Voltage	V _{R(DC)}	40	45	50	60	80	90	100	150	200	
Maximum Average Forward Current	I _{F(AV)}	60									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	350									
Maximum Forward Voltage at 30A per leg	V _F	0.65		0.72		0.82			0.92		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _j =25℃	I _R	0.1						0.05		mA
	T _j =125℃		20								
Maximum Operating Junction Temperature	T _j	150				175					℃
Storage Temperature	T _{stg}	-55~+150				-65~+175					
Typical Thermal Resistance	R _{θJC}	1.3									℃/W

Typical Characteristics

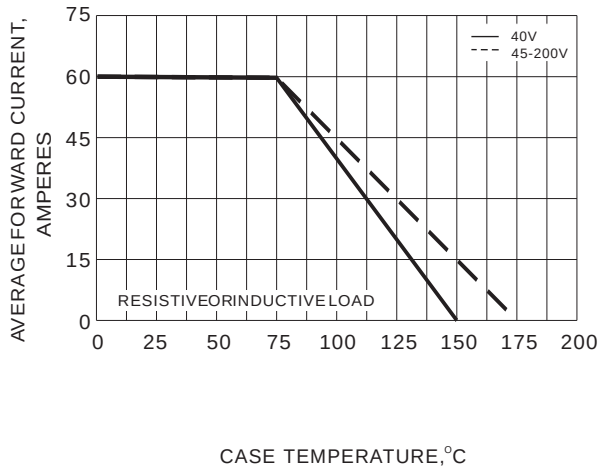


Fig.1 FORWARD CURRENT DERATING CURVE

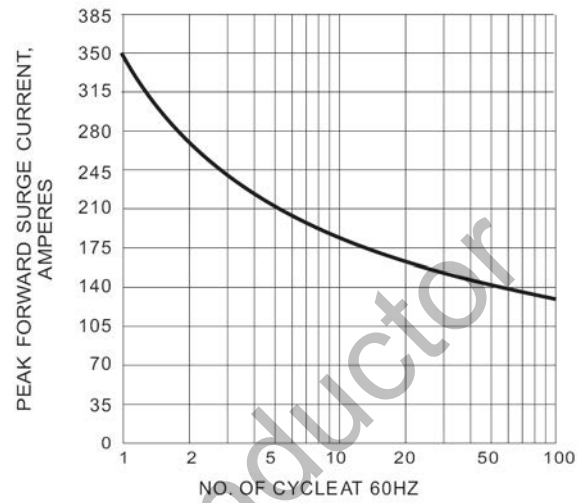


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

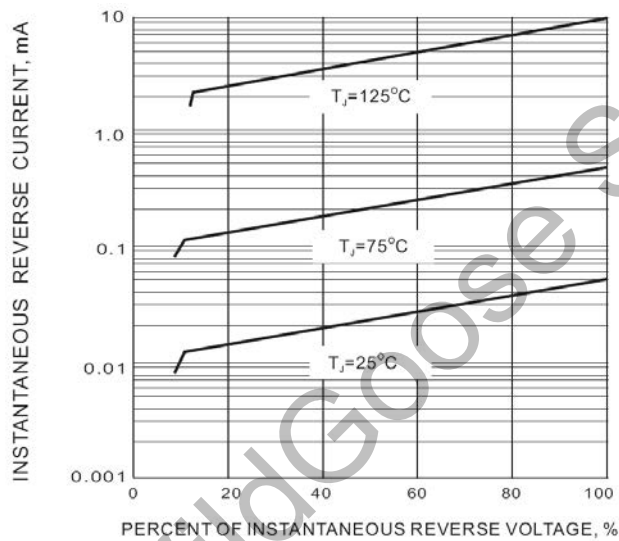


Fig.3. TYPICAL REVERSE CHARACTERISTIC

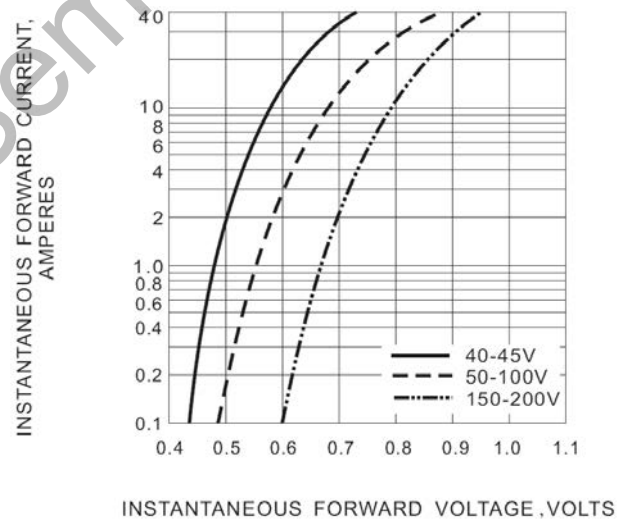
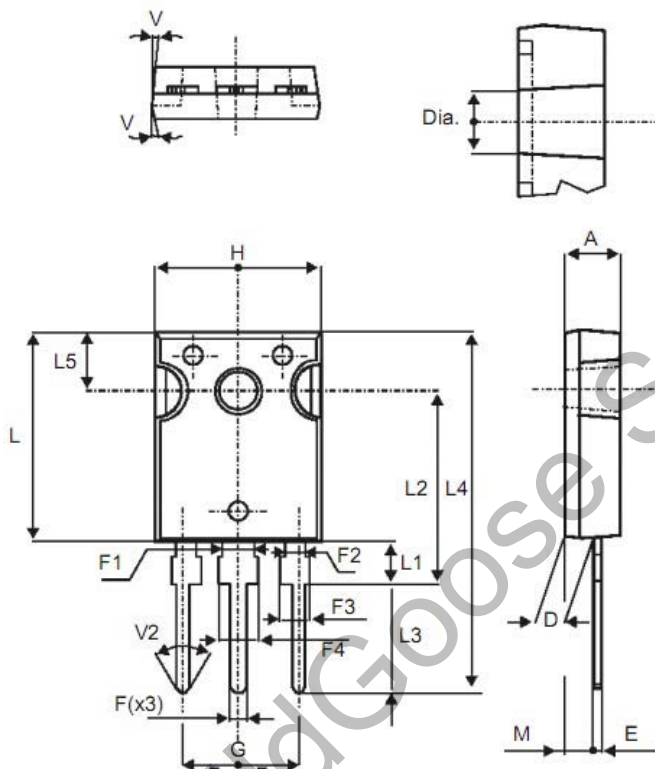


Fig.4. TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

TO-247S



REF.	DIMENSIONS					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.85		5.15	0.191		0.203
D	2.20		2.60	0.086		0.102
E	0.40		0.80	0.015		0.031
F	1.00		1.40	0.039		0.055
F1		3.00			0.118	
F2		2.00			0.078	
F3	2.00		2.40	0.078		0.094
F4	3.00		3.40	0.118		0.133
G		10.90			0.429	
H	15.45		15.75	0.608		0.620
L	19.85		20.15	0.781		0.793
L1	3.70		4.30	0.145		0.169
L2		18.50			0.728	
L3	14.20		14.80	0.559		0.582
L4		34.60			1.362	
L5		5.50			0.216	
M	2.00		3.00	0.078		0.118
V		5°			5°	
V2		60°			60°	
Dia.	3.55		3.65	0.139		0.143