

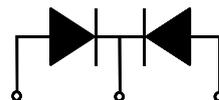
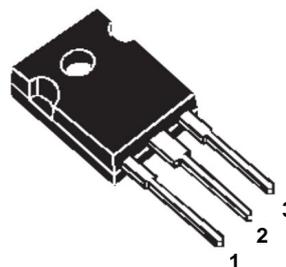


## MBR4040PT - MBR40200PT

### Features

- High Surge Capability
- Low Forward Voltage Drop
- High Current Capability
- Super Fast Switching Speed For High Efficiency

TO-3P(TO-247AD)



1. Anode 2.Cathode 3. Anode

### Absolute Maximum Ratings $T_C=25^{\circ}\text{C}$ unless otherwise noted

PARAMETER	SYMBOL	MBR4040PT	MBR4045PT	MBR4050PT	MBR4060PT	MBR4080PT	MBR4090PT	MBR40100PT	MBR40150PT	MBR40200PT	UNITS
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	V
Maximum DC Blocking Voltage	$V_{DC}$	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current	$I_{F(AV)}$	40									A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	350									A
Maximum Forward Voltage at 20A per leg	$V_F$	0.7	0.79		0.82			0.92		V	
Maximum DC Reverse Current at $T_J=25^{\circ}\text{C}$ Rated DC Blocking Voltage $T_J=125^{\circ}\text{C}$	$I_R$	0.1				0.05			20	mA	
Typical Thermal Resistance	$R_{\theta JC}$	1.2									$^{\circ}\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150				-65 to +175					$^{\circ}\text{C}$

\* Pulse Test: Pulse Width=300 $\mu\text{s}$ , Duty Cycle=2%

# Typical Characteristics

## RATING AND CHARACTERISTIC CURVES

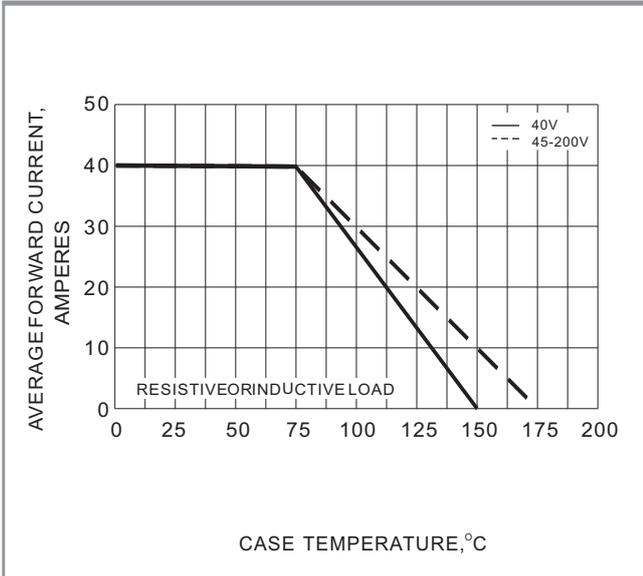


Fig. 1-FORWARD CURRENT DERATING CURVE

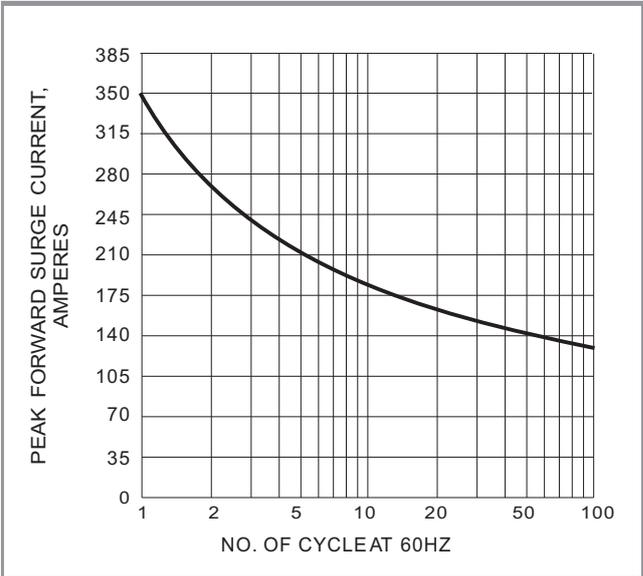


Fig. 2-MAXIMUM NON-REPETITIVE SURGE CURRENT

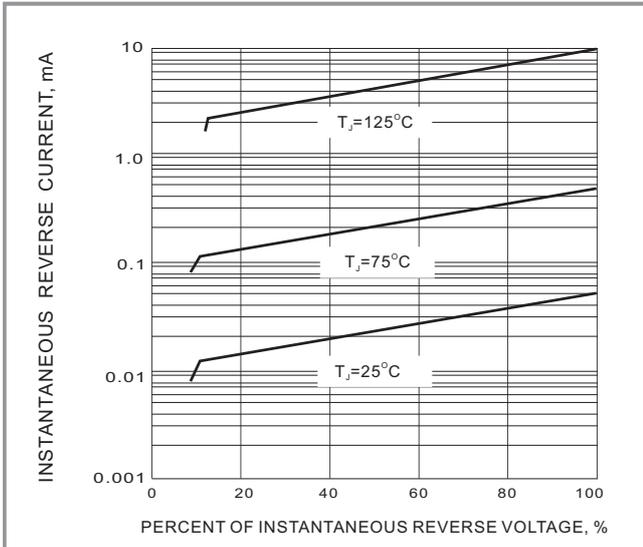


Fig. 3-TYPICAL REVERSE CHARACTERISTIC

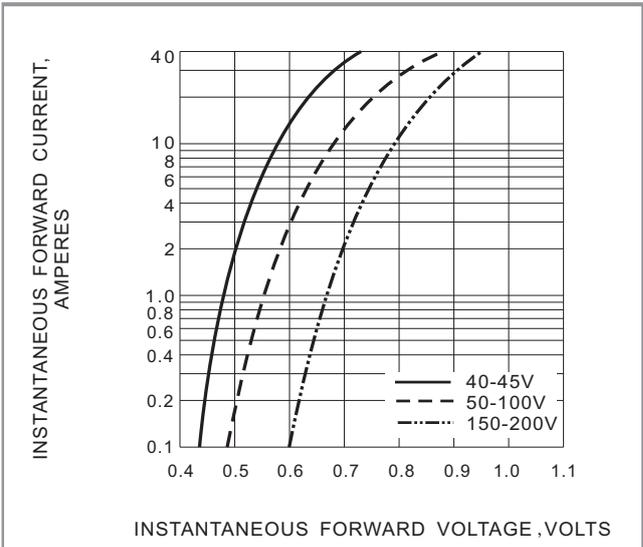


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC