

# America Semiconductor



"In America Semi We Trust"

MANUFACTURER OF WORLD CLASS HIGH POWER SEMICONDUCTORS

## America Semiconductor

### Silicon Power Schottky Diode

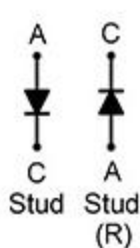
- Features**
- High Surge Capability
  - Types up to 100 V  $V_{RRM}$

### MBR7545 thru MBR75100R

$V_{RRM} = 20\text{ V} - 100\text{ V}$   
 $I_F = 75\text{ A}$

DO-5 Package

- Note:**
1. Standard polarity: Stud is cathode.
  2. Reverse polarity (R): Stud is anode.
  3. Stud is base.



Maximum ratings, at  $T_j = 25^\circ\text{C}$ , unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	MBR7545 (R)	MBR7560 (R)	MBR7580 (R)	MBR75100 (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		45	60	80	100	V
RMS reverse voltage	$V_{RMS}$		32	42	50	70	V
DC blocking voltage	$V_{DC}$		45	60	80	100	V
Continuous forward current	$I_F$	$T_C \leq 100^\circ\text{C}$	75	75	75	75	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}, t_p = 8.3\text{ ms}$	1000	1000	1000	1000	A
Operating temperature	$T_j$		-65 to 150	-65 to 150	-65 to 150	-65 to 150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-65 to 175	-65 to 175	-65 to 175	-65 to 175	$^\circ\text{C}$

Electrical characteristics, at  $T_j = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Conditions	MBR7545 (R)	MBR7560(R)	MBR7580 (R)	MBR75100 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 75\text{ A}, T_j = 25^\circ\text{C}$	0.65	0.75	0.84	0.84	V
Reverse current	$I_R$	$V_R = 20\text{ V}, T_j = 25^\circ\text{C}$	5	5	5	5	mA
		$V_R = 20\text{ V}, T_j = 125^\circ\text{C}$	150	150	150	150	mA

**Thermal characteristics**

Thermal resistance, junction - case	$R_{\theta JC}$	1.0	1.0	1.0	1.0	$^\circ\text{C/W}$
-------------------------------------	-----------------	-----	-----	-----	-----	--------------------

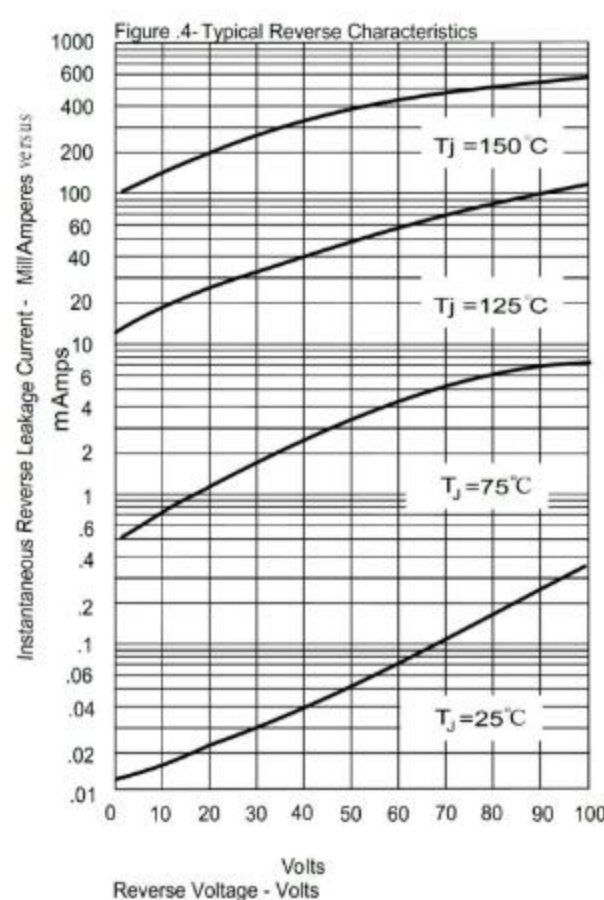
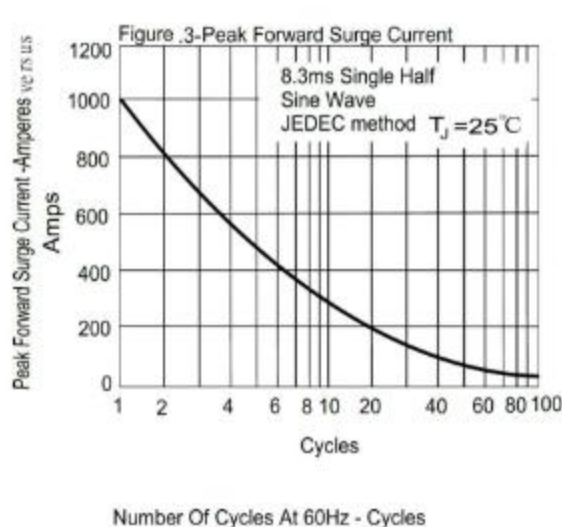
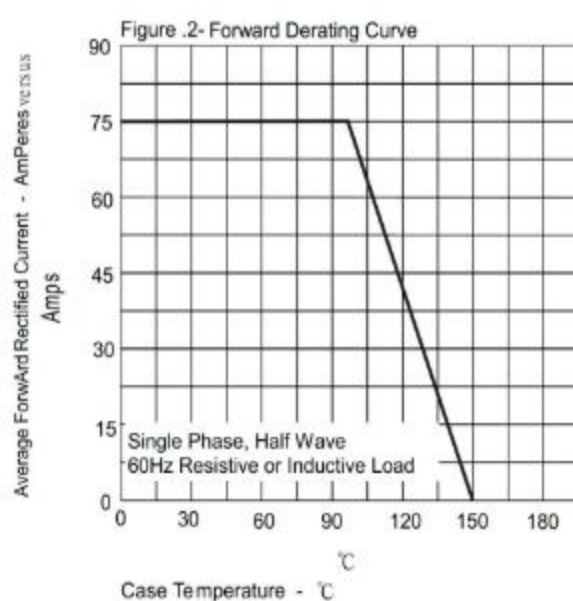
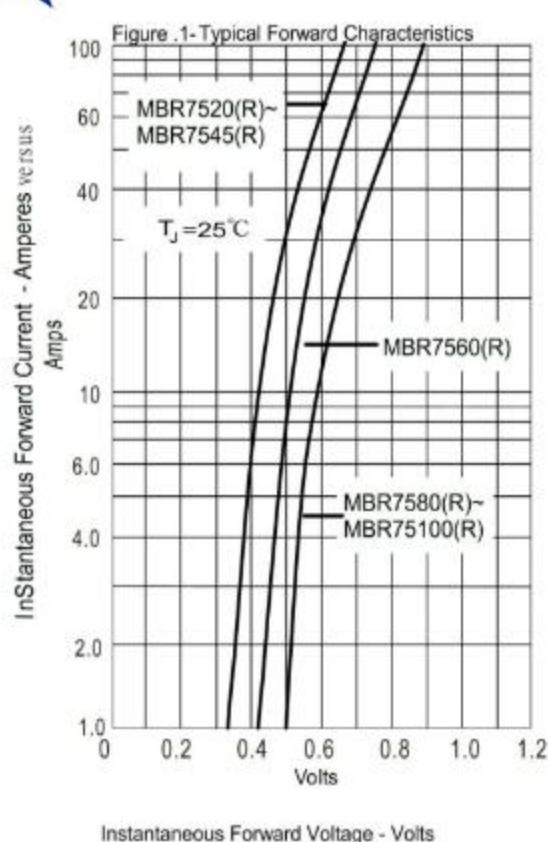


www.AmericaSemi.com

1

## America Semiconductor

### MBR7545 thru MBR75100R



www.AmericaSemi.com

2

