

MBR7535-MBR7545

75 A SCHOTTKY RECTIFIERS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

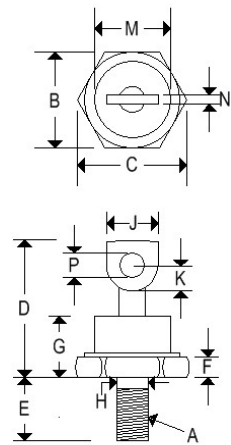
Rating	Symbol	MBR7535	MBR7545	Unit
Peak repetitive reverse voltage	V_{RRM}	35	45	V
Working peak reverse voltage	V_{RWM}			
DC blocking voltage	V_R			
Peak repetitive forward current (Rated V_R , square wave, 20kHz)	I_{FRM}	150 @ $T_C = 90^{\circ}\text{C}$		A
Average rectified forward current (Rated V_R)	I_o	75 @ $T_C = 90^{\circ}\text{C}$		A
Non-repetitive peak surge current (surge applied at rated load conditions, halfwave, single phase, 60Hz)	I_{FSM}	1000		A
Operating junction and storage temperature range	T_J, T_{stg}	-65 to +150		$^{\circ}\text{C}$
Peak operating junction temperature (Forward current applied)	$T_{J(pk)}$	175		$^{\circ}\text{C}$
Voltage rate of change (Rated V_R)	dv/dt	1000		V/ μs
Maximum thermal resistance Junction to case	$R_{\theta JC}$	0.80		$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	MBR7535	MBR7545	Unit
Instantaneous forward voltage ⁽¹⁾ ($I_F = 60\text{A}$, $T_C = 125^\circ\text{C}$) ($I_F = 220\text{A}$, $T_C = 120^\circ\text{C}$)	V_F	0.60 0.90		V
Instantaneous reverse current ⁽¹⁾ (Rated dc voltage, $T_C = 125^\circ\text{C}$)	I_R	150	250	mA
Capacitance ($V_R = 5.0\text{Vdc}$, $100\text{kHz} \leq f \leq 1.0\text{MHz}$)	C_t	4000		pF

MECHANICAL CHARACTERISTICS

Case	DO-5(R)
Marking	Alpha-numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-5(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	¼-28 UNF2A threads			
B	0.669	0.688	16.990	17.480
C	-	0.794	-	20.160
D	-	1.000	-	25.400
E	0.422	0.453	10.720	11.510
F	0.115	0.200	2.920	5.080
G	-	0.450	-	11.430
H	0.220	0.249	5.580	6.320
J	0.250	0.375	6.350	9.530
K	0.156	-	3.960	-
M	-	0.667	-	16.940
N	0.030	0.080	0.760	2.030
P	0.140	0.175	3.560	4.450

FIGURE 1 – TYPICAL FORWARD VOLTAGE

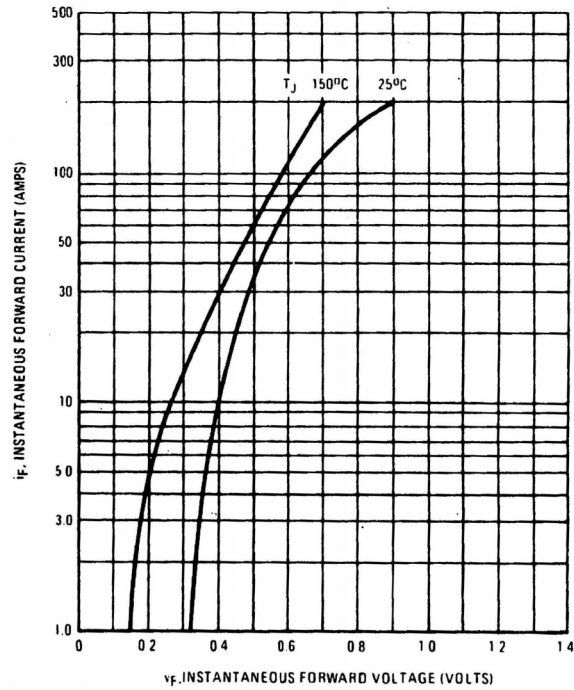


FIGURE 2 – CURRENT DERATING

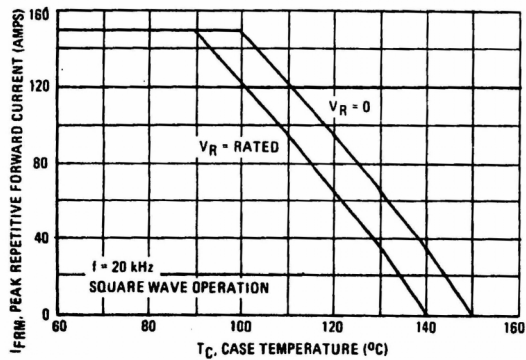


FIGURE 3 – TYPICAL REVERSE OPERATION

