

MBR2535CT-MBR2545CT

30 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	MBR2535CT	MBR2545CT	Unit
Peak repetitive reverse voltage	V_{RRM}	35	45	V
Working peak reverse voltage	V_{RWM}			
DC blocking voltage	V_R			
Average rectified forward current (Rated V_R)	$I_{F(AV)}$	30 @ $T_c = 130^\circ\text{C}$		A
Non-repetitive peak surge current per diode (surge applied at rated load conditions, halfwave, single phase, 60Hz)	I_{FSM}	150		A
Peak repetitive reverse surge current (2.0 μs , 1.0kHz)	I_{RRM}	1.0		A
Operating junction temperature range	T_J	-65 to +150		$^\circ\text{C}$
Storage temperature range	T_{stg}	-65 to +175		$^\circ\text{C}$
Voltage rate of change (Rated V_R)	dv/dt	1000		V/ μs
Maximum thermal resistance Junction to case	$R_{\theta JC}$	1.5		$^\circ\text{C}/\text{W}$

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

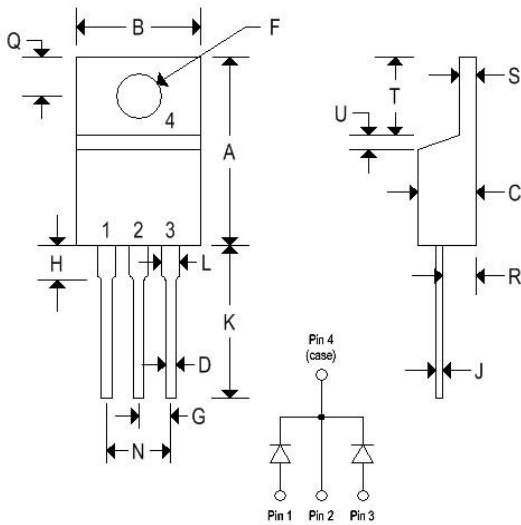
Parameter	Symbol	MBR2535CT	MBR2545CT	Unit
Maximum instantaneous forward voltage ⁽¹⁾ ($I_F = 30\text{A}$, $T_c = 125^\circ\text{C}$) ($I_F = 30\text{A}$, $T_c = 25^\circ\text{C}$)	V_F	0.73 0.82		V
Maximum instantaneous reverse current ⁽¹⁾ (Rated dc voltage, $T_c = 125^\circ\text{C}$) (Rated dc voltage, $T_c = 25^\circ\text{C}$)	I_R	40 0.2		mA

MBR2535CT-MBR2545CT

30 A SCHOTTKY RECTIFIERS

MECHANICAL CHARACTERISTICS

Case	TO-220AB
Marking	Alpha-numeric
Pin out	Cathode band



	TO-220AB			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.570	0.620	14.480	15.750
B	0.380	0.405	9.660	10.280
C	0.160	0.190	4.070	4.820
D	0.025	0.035	0.640	0.880
F	0.142	0.147	3.610	3.730
G	0.095	0.105	2.420	2.660
H	0.110	0.155	2.800	3.930
J	0.018	0.025	0.460	0.640
K	0.500	0.562	12.700	14.270
L	0.045	0.060	1.150	1.520
N	0.190	0.210	4.830	5.330
Q	0.100	0.120	2.540	3.040
R	0.080	0.110	2.040	2.790
S	0.045	0.055	1.150	1.390
T	0.235	0.255	5.970	6.470
U	-	0.050	-	1.270

FIGURE 1 — TYPICAL FORWARD VOLTAGE

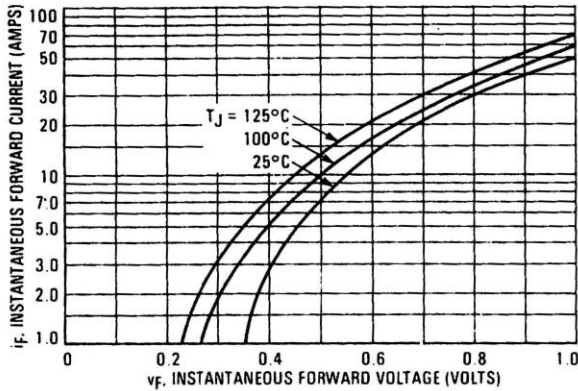


FIGURE 2 — TYPICAL REVERSE CURRENT

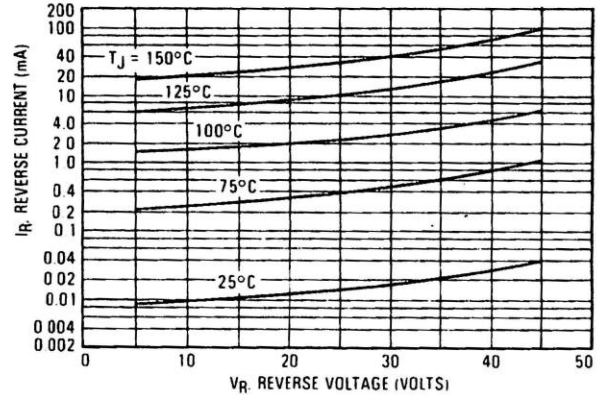


FIGURE 3 — CURRENT DERATING, CASE

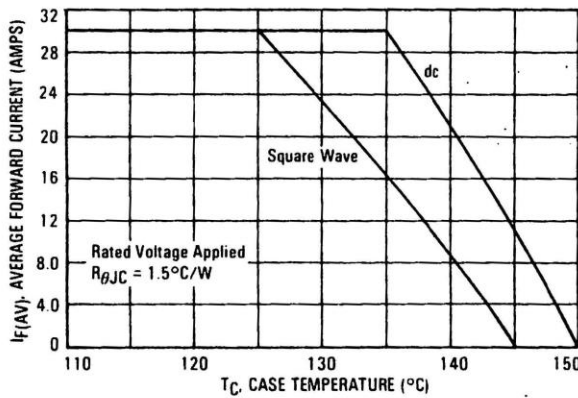


FIGURE 4 — CURRENT DERATING, AMBIENT

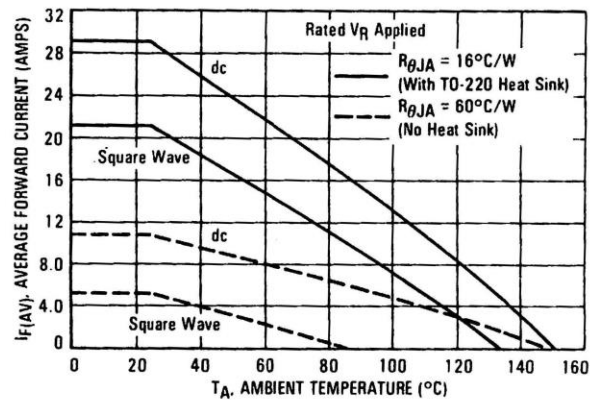


FIGURE 5 — FORWARD POWER DISSIPATION

