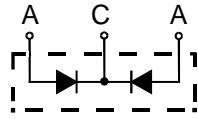
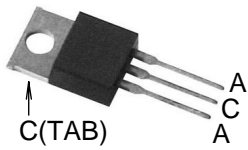


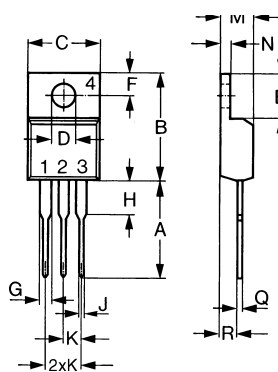
MBR20150CT thru MBR20200CT

Wide Temperature Range and High T_{jm} Schottky Barrier Rectifiers



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-220AB



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	12.70	13.97	0.500	0.550
B	14.73	16.00	0.580	0.630
C	9.91	10.66	0.390	0.420
D	3.54	4.08	0.139	0.161
E	5.85	6.85	0.230	0.270
F	2.54	3.18	0.100	0.125
G	1.15	1.65	0.045	0.065
H	2.79	5.84	0.110	0.230
J	0.64	1.01	0.025	0.040
K	2.54	BSC	0.100	BSC
M	4.32	4.82	0.170	0.190
N	1.14	1.39	0.045	0.055
Q	0.38	0.56	0.015	0.022
R	2.29	2.79	0.090	0.110

	V_{RSM}	V_{RRM}
	V	V
MBR20150CT	150	150
MBR20200CT	200	200

Symbol	Test Conditions	Maximum Ratings	Unit
I_{FRMS}		20	
I_{FAV}	$T_C=125^\circ\text{C}$; rectangular, $d=0.5$	10	A
I_{FAV}	$T_C=125^\circ\text{C}$; rectangular, $d=0.5$; per device	20	
I_{FSM}	$T_{VJ}=45^\circ\text{C}$; $t_p=10\text{ms}$ (50Hz), sine	150	A
I_{AR}	$V_A=1.5 \cdot V_{RRM}$ typ.; $f=10\text{kHz}$; repetitive	0.8	A
$(dv/dt)_{cr}$		10000	V/us
T_{VJ}		-65...+150	$^\circ\text{C}$
T_{VJM}		150	
T_{stg}		-65...+175	
M_d	mounting torque	0.4...0.6	Nm
Weight	typical	2	g

Symbol	Test Conditions	Characteristic Values		Unit
		typ.	max.	
I_R	$T_{VJ}=25^\circ\text{C}$; $V_R=V_{RRM}$ $T_{VJ}=125^\circ\text{C}$; $V_R=V_{RRM}$		1.0 50	mA
V_F	$I_F=10\text{A}$; $T_{VJ}=125^\circ\text{C}$ $I_F=10\text{A}$; $T_{VJ}=25^\circ\text{C}$ $I_F=20\text{A}$; $T_{VJ}=125^\circ\text{C}$ $I_F=20\text{A}$; $T_{VJ}=25^\circ\text{C}$		0.80 0.90 0.90 1.00	V
R_{thJC}			2.0	K/W

FEATURES

- * International standard package
- * Very low V_F
- * Extremely low switching losses
- * Low I_{RM} -values

APPLICATIONS

- * Rectifiers in switch mode power supplies (SMPS)
- * Free wheeling diode in low voltage converters

ADVANTAGES

- * High reliability circuit operation
- * Low voltage peaks for reduced protection circuits
- * Low noise switching
- * Low losses

Sirectifier®

MBR20150CT thru MBR20200CT

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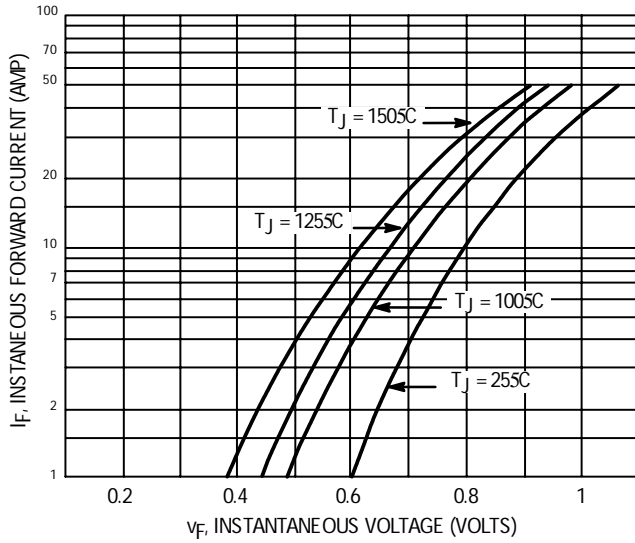


Figure 1. Typical Forward Voltage (Per Leg)

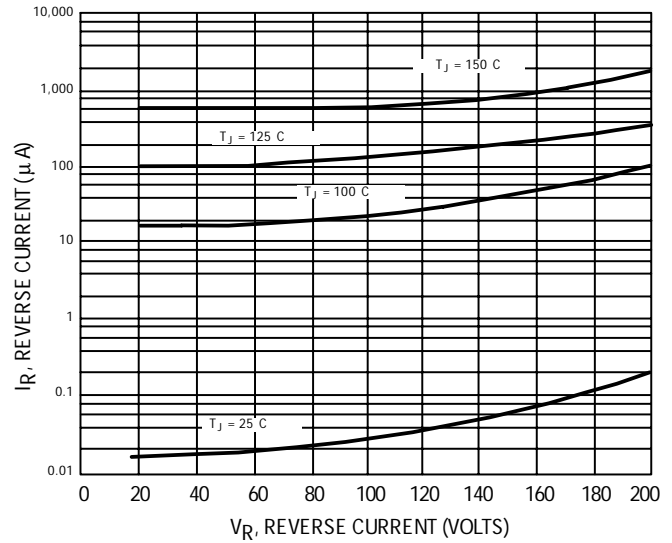


Figure 2. Typical Reverse Current (Per Leg)

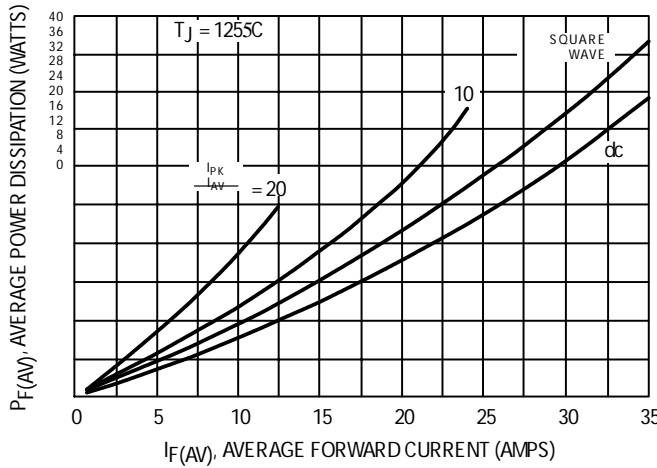


Figure 3. Forward Power Dissipation

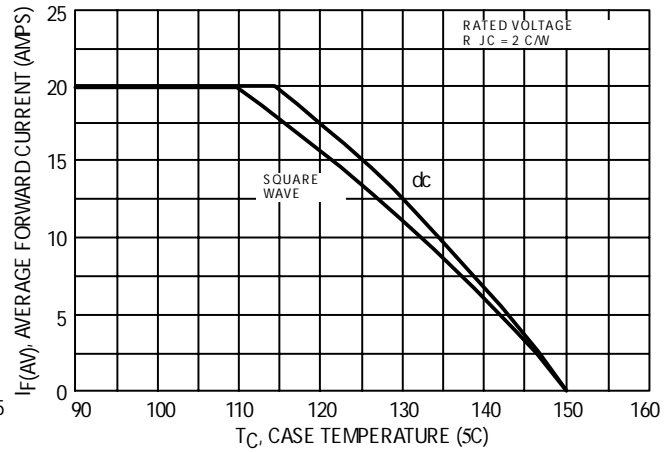


Figure 4. Current Derating, Case

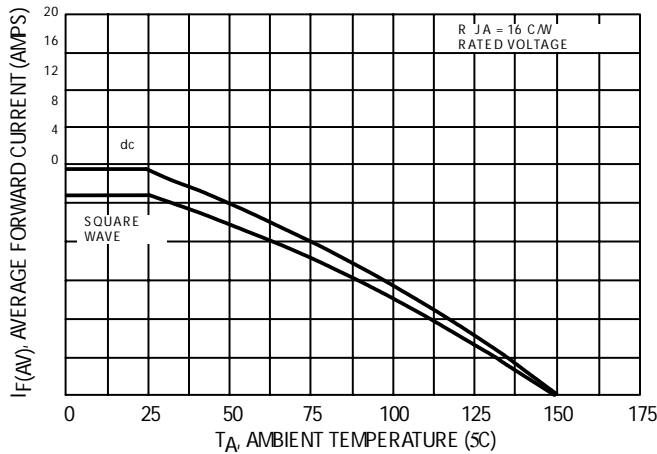


Figure 5. Current Derating, Ambient

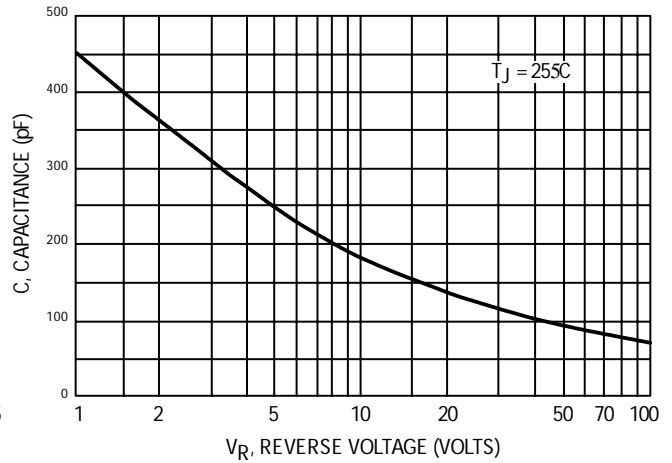


Figure 6. Typical Capacitance (Per Leg)