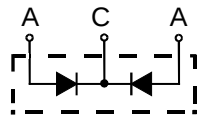


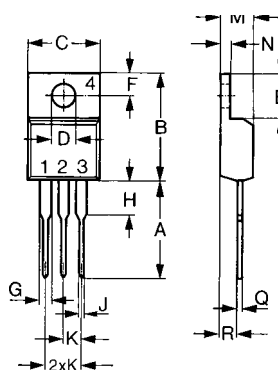
MBR20150CT thru MBR20200CT

High Tjm Low IRRM Schottky Barrier Diodes



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	V _{RRM} V
MBR20150CT	150	150
MBR20200CT	200	200

Symbol	Test Conditions	Maximum Ratings	Unit
I _{FRMS}	T _C =125°C; rectangular, d=0.5	20	A
I _{FAV}	T _C =125°C; rectangular, d=0.5	10	
I _{FAV}	T _C =125°C; rectangular, d=0.5; per device	20	
I _{FSM}	T _{VJ} =45°C; t _p =10ms (50Hz), sine	150	A
I _{AR}	V _A =1.5•V _{RRM} typ.; f=10kHz; repetitive	0.8	A
(dv/dt) _{cr}		10000	V/us
T _{VJ}		-65...+150	°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 typ.	Characteristic Values max.	Unit
I _R	T _{VJ} =25°C; V _R =V _{RRM} T _{VJ} =125°C; V _R =V _{RRM}		1.0 50	mA
V _F	I _F =10A; T _{VJ} =125°C I _F =10A; T _{VJ} =25°C I _F =20A; T _{VJ} =125°C I _F =20A; T _{VJ} =25°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
- * RoHS compliant

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



MBR20150CT thru MBR20200CT

High T_{jm} Low IRRM Schottky Barrier Diodes

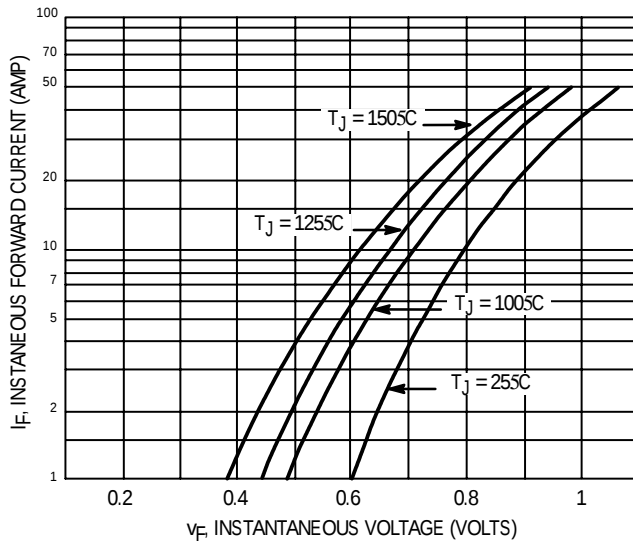


Figure 1. Typical Forward Voltage (Per Leg)

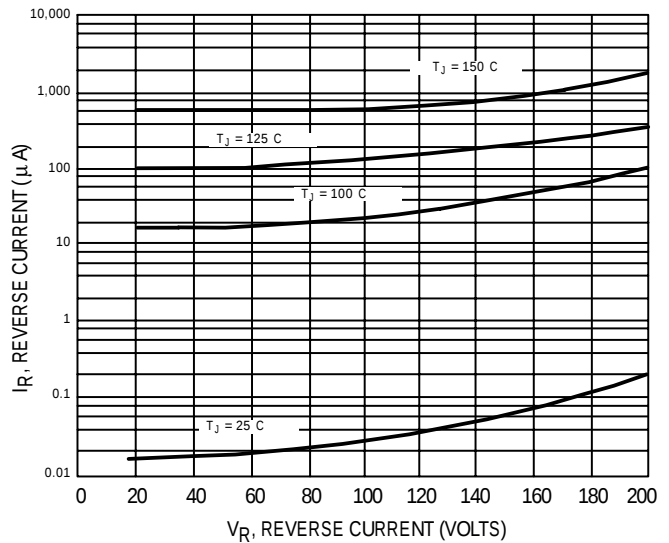


Figure 2. Typical Reverse Current (Per Leg)

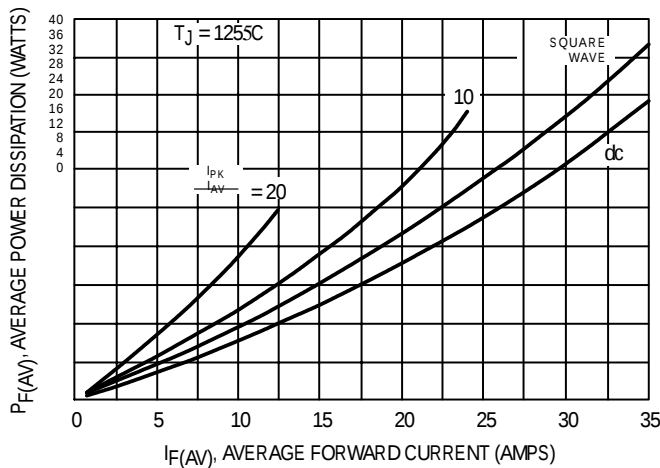


Figure 3. Forward Power Dissipation

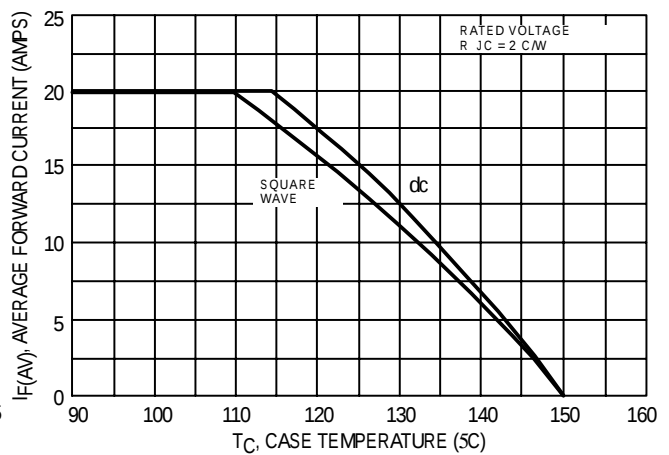


Figure 4. Current Derating, Case

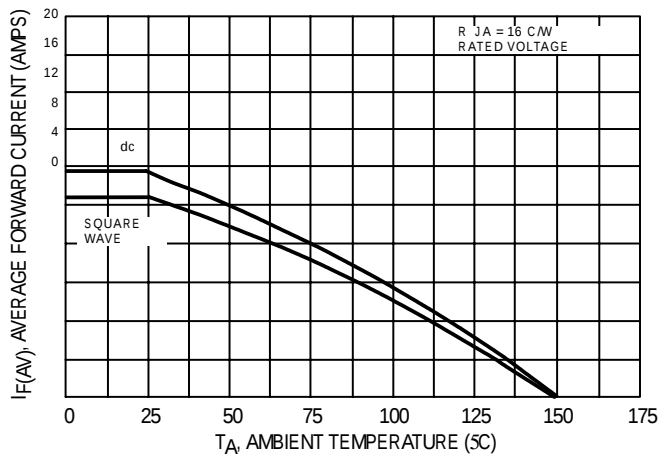


Figure 5. Current Derating, Ambient

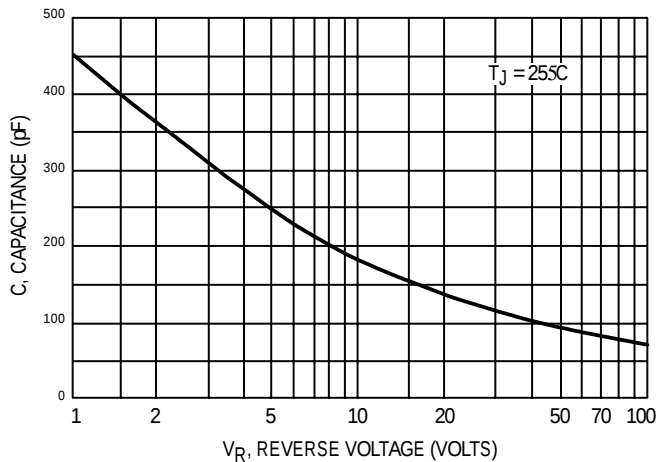


Figure 6. Typical Capacitance (Per Leg)

