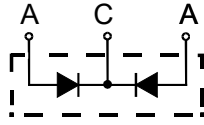
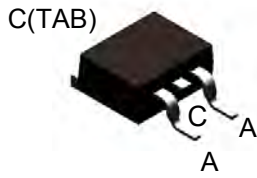
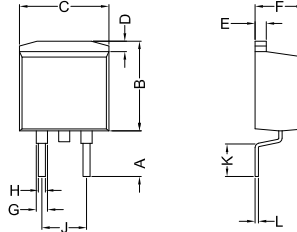


MBRB1530CT thru MBRB1545CT

High T_{jm} Low IRRM Schottky Barrier Diodes



Dimensions TO-263(D²PAK)



Dim.	Millimeter		Inches	
	Mln.	Max.	Mln.	Max.
A	5.00	5.60	0.197	0.220
B	9.32	10.52	0.337	0.414
C	9.60	10.40	0.378	0.409
D	1.10	1.40	0.047	0.055
E	1.20	1.50	0.051	0.059
F	4.32	4.82	0.170	0.190
G	1.15	1.65	0.045	0.065
H	0.64	1.00	0.025	0.040
J	4.80	5.20	0.177	0.200
K	2.80	3.90	0.110	0.154
L	0.30	0.45	0.012	0.017

A=Anode, C=Cathode, TAB=Cathode

	V _{RRM} V	V _{RMS} V	V _{DC} V
MBRB1530CT	30	21	30
MBRB1535CT	35	24.5	35
MBRB1540CT	40	28	40
MBRB1545CT	45	31.5	45

Symbol	Characteristics	Maximum Ratings	Unit
I _{AV}	Maximum Average Forward Rectified Current @T _c =105°C	15	A
I _{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	150	A
dv/dt	Voltage Rate Of Change (Rated V _R)	10000	V/us
V _F	Maximum Forward Voltage At (Note 1) I _F =7.5A @T _J =25°C I _F =7.5A @T _J =125°C I _F =15A @T _J =25°C I _F =15A @T _J =125°C	0.75 0.57 0.84 0.72	V
I _R	Maximum DC Reverse Current At Rated DC Blocking Voltage @T _J =25°C @T _J =100°C	0.1 15	mA
Re _{Jc}	Typical Thermal Resistance; Junction To Case	2.0	C/W
Re _{Ja}	Typical Thermal Resistance; Junction To Ambient	50	C/W
C _J	Typical Junction Capacitance Per Element (Note 2)	300	pF
T _J	Operating Temperature Range	-55 to +150	C
T _{Stg}	Storage Temperature Range	-55 to +175	C

NOTES: 1. 300us Pulse Width, Duty Cycle 2%.

2. Measured At 1.0MHz And Applied Reverse Voltage of 4.0V DC.

FEATURES

- * Metal of silicon rectifier, majority carrier conducton
- * Guard ring for transient protection
- * Low power loss, high efficiency
- * High current capability, low V_F
- * High surge capacity
- * For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- * RoHS compliant

MECHANICAL DATA

- * Case: D²PAK molded plastic
- * Polarity: As marked on the body
- * Weight: 1.6 grams

MBRB1530CT thru MBRB1545CT

High T_{jm} Low IRRM Schottky Barrier Diodes

Fig. 1 - Forward Current Derating Curve

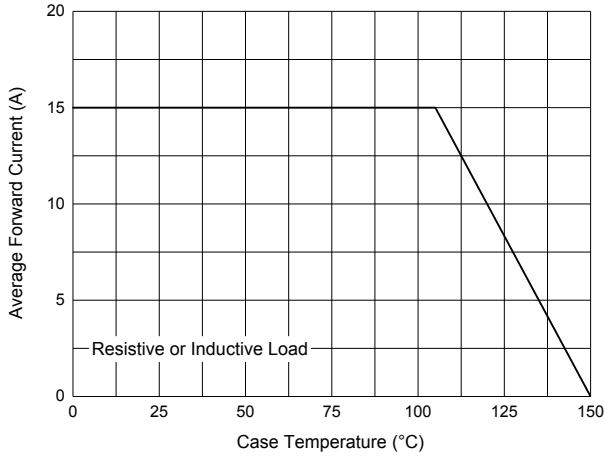


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

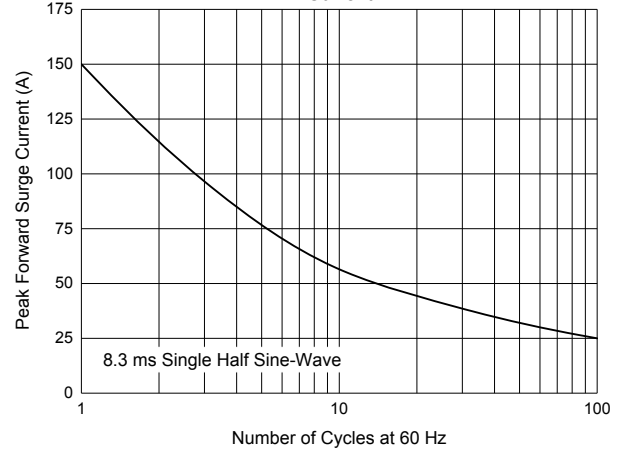


Fig. 3 - Typical Instantaneous Forward Characteristics

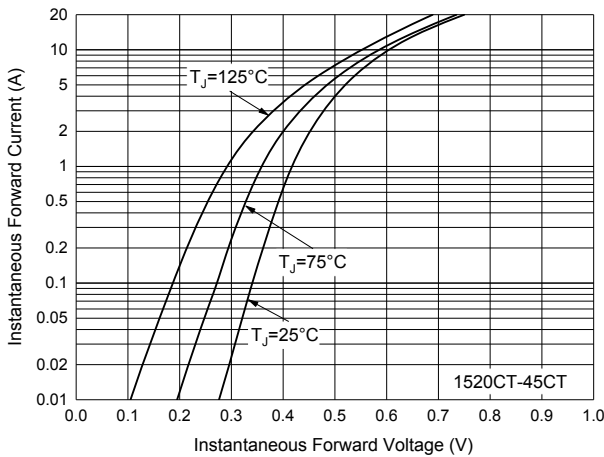


Fig. 4 - Typical Instantaneous Forward Characteristics

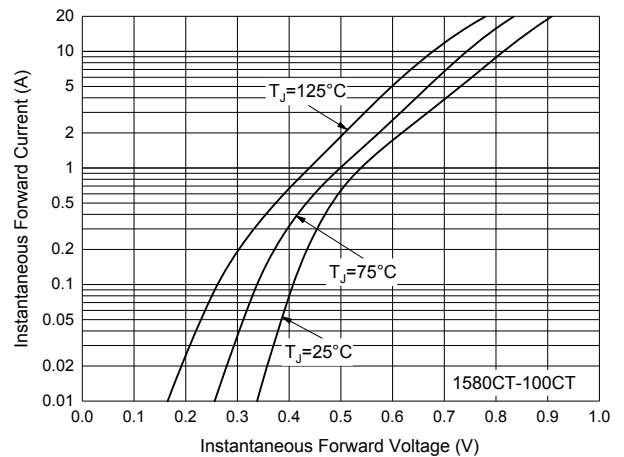


Fig. 5 - Typical Reverse Leakage Characteristics

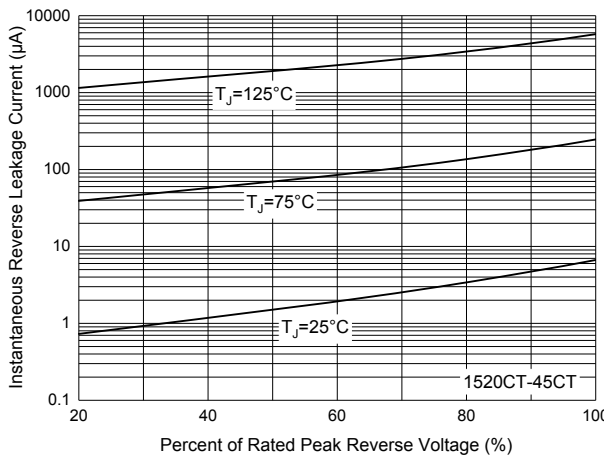


Fig. 6 - Typical Reverse Leakage Characteristics

