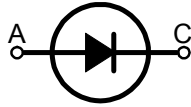


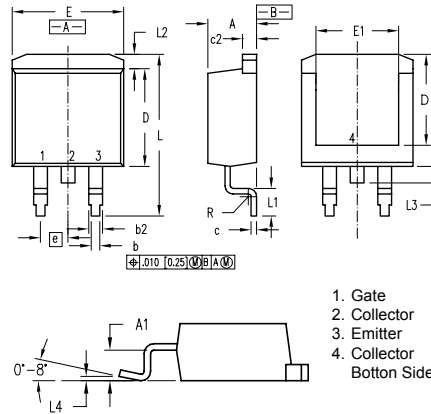
# MBRB1530CT thru MBRB1545CT

## High T<sub>jm</sub> Low IRRM Schottky Barrier Diodes



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-263(D<sup>2</sup>PAK)



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.06	4.83	.160	.190
A1	2.03	2.79	.080	.110
b	0.51	0.99	.020	.039
b2	1.14	1.40	.045	.055
c	0.46	0.74	.018	.029
c2	1.14	1.40	.045	.055
D	8.64	9.65	.340	.380
D1	8.00	8.89	.315	.350
E	9.65	10.29	.380	.405
E1	6.22	8.13	.245	.320
e	2.54 BSC		.100 BSC	
L	14.61	15.88	.575	.625
L1	2.29	2.79	.090	.110
L2	1.02	1.40	.040	.055
L3	1.27	1.78	.050	.070
L4	0	0.20	0	.008
R	0.46	0.74	.018	.029

	V <sub>RRM</sub> V	V <sub>RMS</sub> V	V <sub>DC</sub> 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 <sub(av)< sub=""></sub(av)<>	Maximum Average Forward Rectified Current @T <sub>c</sub> =105°C	15	A
I <sub>FSM</sub>	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 <sub>R</sub> )	10000	V/us
V <sub>F</sub>	Maximum Forward Voltage At (Note 1) I <sub>F</sub> =7.5A @T <sub>J</sub> =25°C I <sub>F</sub> =7.5A @T <sub>J</sub> =125°C I <sub>F</sub> =15A @T <sub>J</sub> =25°C I <sub>F</sub> =15A @T <sub>J</sub> =125°C	- 0.57 0.84 0.72	V
I <sub>R</sub>	Maximum DC Reverse Current At Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	0.1 15	mA
R <sub>θJC</sub>	Typical Thermal Resistance; Junction To Case	2.0	°C/W
R <sub>θJA</sub>	Typical Thermal Resistance; Junction To Ambient	50	°C/W
C <sub>J</sub>	Typical Junction Capacitance Per Element (Note 2)	300	pF
T <sub>J</sub>	Operating Temperature Range	-55 to +150	°C
T <sub>STG</sub>	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<sub>F</sub>
- \* High surge capacity
- \* For use in low voltage, high frequency inverters, free whelling, and polarity protection applications
- \* RoHS compliant

### MECHANICAL DATA

- \* Case: D<sup>2</sup>PAK molded plastic
- \* Polarity: As marked on the body
- \* Weight: 2 grams



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