Features

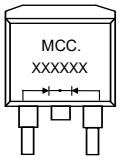
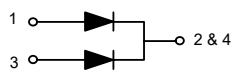
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Guard Ring For Transient Protection

16 Amp Schottky Barrier Rectifier 45 to 60 Volts

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value		Unit
		MBRB1645CT	MBRB1660CT	
Peak Repetitive Reverse Voltage	V_{RRM}	45	60	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
RMS Reverse Voltage	V_{RMS}	31.5	42	V
Average Rectified Forward Current Per Diode Per Device	$I_{F(AV)}$	8 16		A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	150		A
Current Squared Time @1ms≤t≤8.3ms	I^2t	93		A^2s

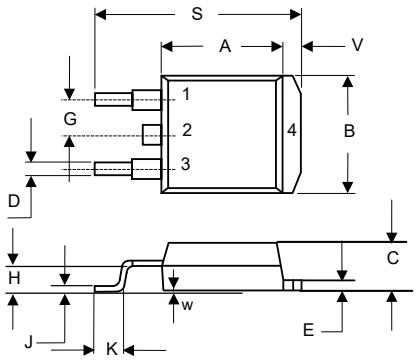
Part Number	Marking Code
MBRB1645CT	MBRB1645CT
MBRB1660CT	MBRB1660CT

Marking Diagram	Internal Structure
 XXXXXX : Marking Code	

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

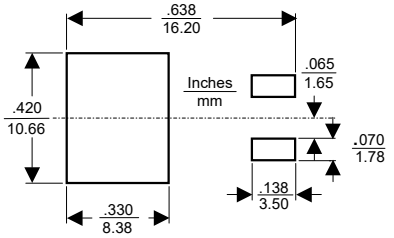
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

D^2-PAK



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.331	0.370	8.40	9.40	
B	0.378	0.417	9.60	10.60	
C	0.165	0.189	4.20	4.80	
D	0.027	0.037	0.68	0.94	
E	0.045	0.055	1.14	1.40	
G	0.010		2.54		TYP.
H	0.096	0.134	2.43	3.40	
J	0.011	0.025	0.28	0.64	
K	0.071	0.131	1.80	3.32	
S	0.575	0.625	14.60	15.87	
V	0.042	0.058	1.07	1.47	
W	0.000	0.010	0.00	0.25	

Suggested Solder Pad Layout



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case	Per Leg		2		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		40		°C/W

Note:
1.Device mounted on an FR4 PCB with 1in^2 copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage Per Diode						
MBRB1645CT	V_F	I_F=8A;T_J=25°C		0.55	0.65	V
		I_F=8A;T_J=125°C		0.50	0.57	
MBRB1660CT		I_F=8A;T_J=25°C		0.66	0.75	
		I_F=8A;T_J=125°C		0.58	0.70	
Reverse Current Per Diode	I_R	at Rated V_R;T_J=25°C			0.1	mA
		at Rated V_R;T_J=100°C			10	
Junction Capacitance Per Diode						
MBRB1645CT	C_J	V_R=4V;f=1MHz;T_J=25°C		335		pF
MBRB1660CT				275		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

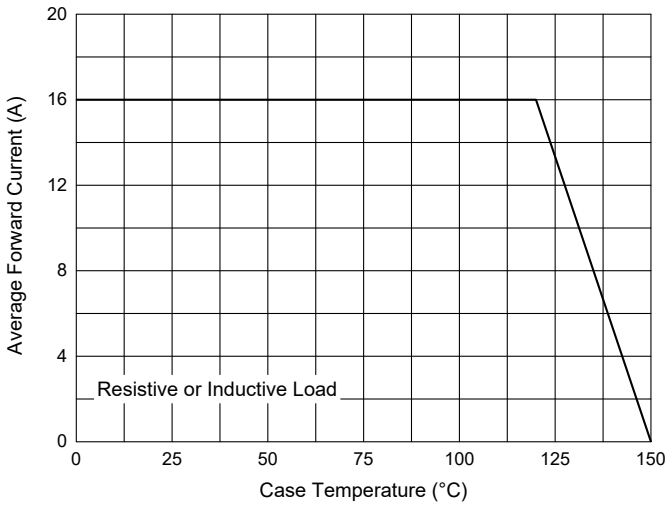


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

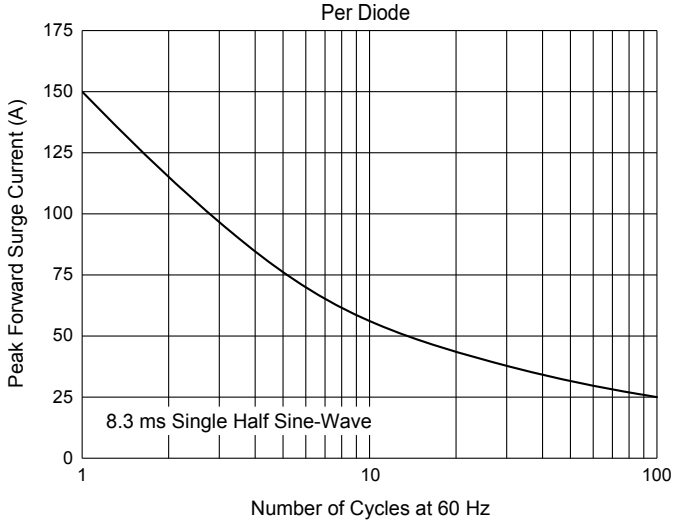


Fig. 3 - Typical Forward Characteristics Per Diode

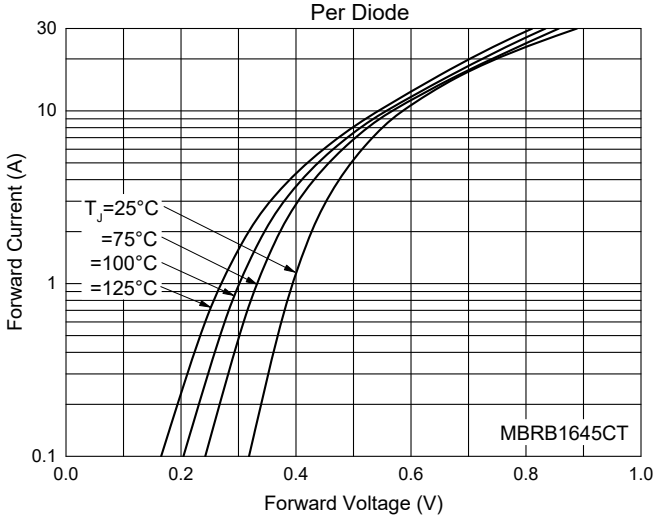


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

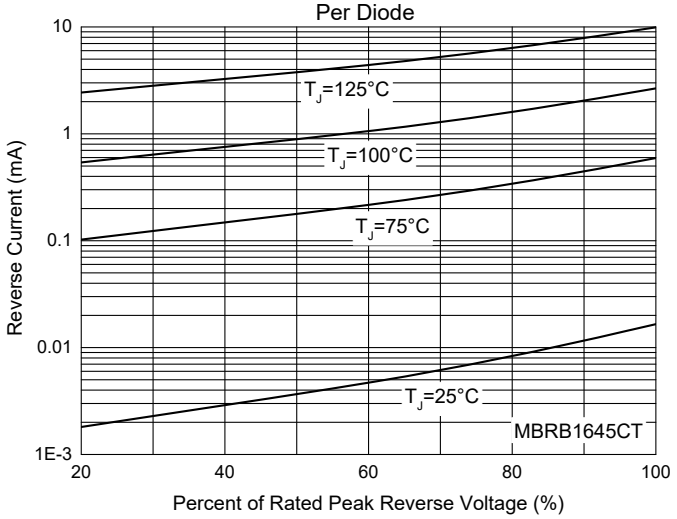


Fig. 5 - Typical Forward Characteristics Per Diode

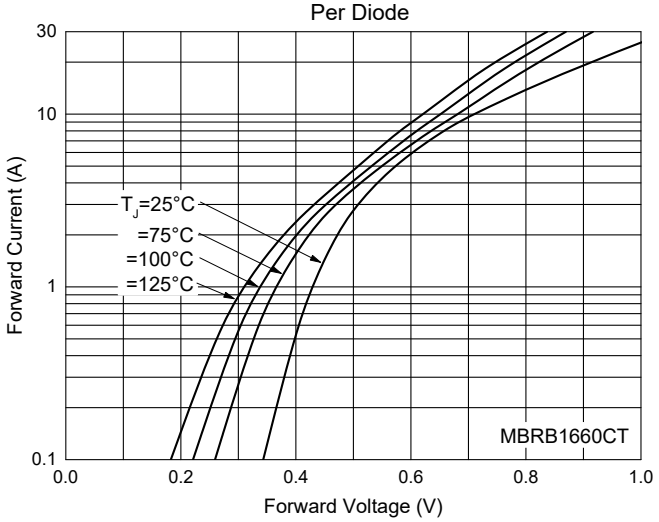
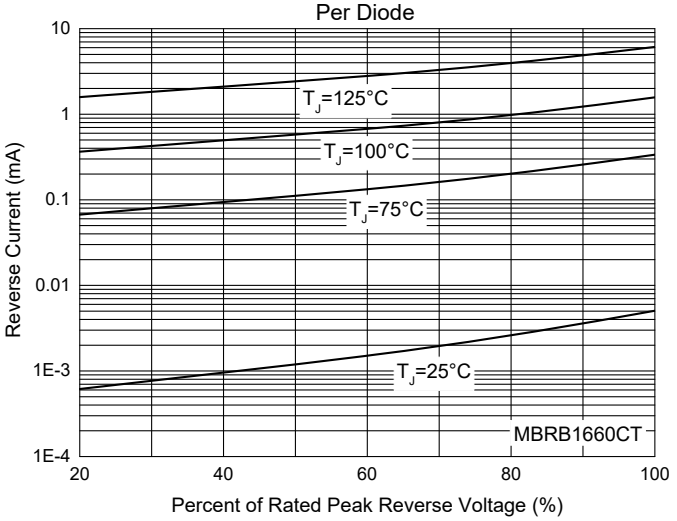
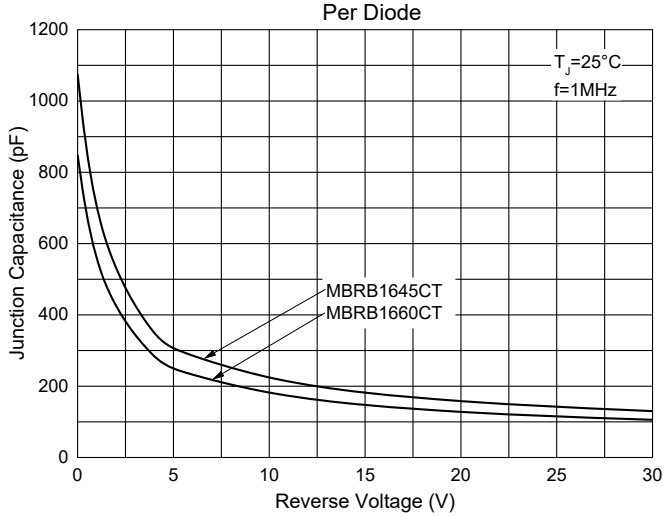


Fig. 6 - Typical Reverse Leakage Characteristics Per Diode



Curve Characteristics

Fig. 7 - Typical Capacitance Characteristics
Per Diode



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 800pcs/Reel
Part Number-BP	Tube: 5Kpcs/Ctn