

MBRD1545CT

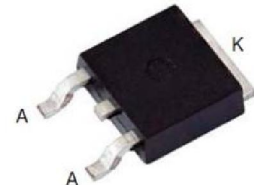
Schottky Barrier Rectifier

Reverse Voltage 45 Volts Forward Current 15 Amperes

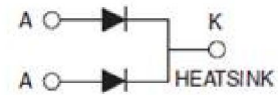
Features

- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- Guarding for over voltage protection

TO-252 (D-PAK)



Package: TO-252(D-PAK)



Mechanical Data

- Case: epoxy, molded
- Weight: 0.4grams (approximately)
- Lead temperature for soldering purpose: 260°C max. for 10 sec
- 2500 pcs per reel

Maximum Ratings & Electrical Characteristics

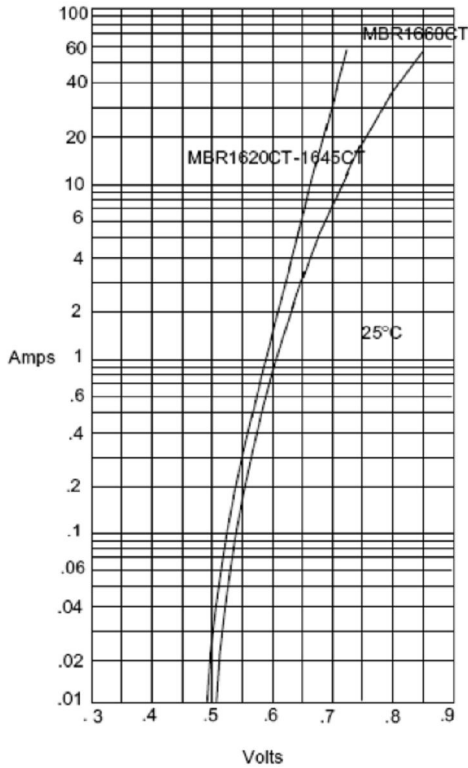
($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Test Conditions		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage			V_{RRM}	45	V
Working Peak Reverse Voltage			V_{RWM}	45	V
Maximum DC Blocking Voltage			V_{DC}	45	V
Maximum Average Forward Rectified Current at $T_C=105^{\circ}\text{C}$	Total Device		$I_{F(AV)}$	15	A
	Per Diode			7.5	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode			I_{FSM}	125	A
Peak Repetitive Reverse Current per Leg at $t_p=2.0\mu\text{s}$, 1KHz			I_{RRM}	1.0	A
Voltage Rate of Change (Rated V_R)			DV/dt	10000	V/us
Operating Junction Temperature Range			T_J	- 55 to+150	$^{\circ}\text{C}$
Storage Temperature Range			T_{STG}	- 55 to+150	$^{\circ}\text{C}$
Maximum Instantaneous Forward Voltage per Leg	$I_F=7.5\text{A}$	$T_C=25^{\circ}\text{C}$	V_F	0.52	V
	$I_F=7.5\text{A}$	$T_C=125^{\circ}\text{C}$		0.47	
Maximum Reverse Current per Leg at Working Peak Reverse Voltage			I_R	200	μA
				15	mA
Thermal Characteristics $T_A=25^{\circ}\text{C}$ unless otherwise noted					
Symbol	Parameter	Typ.(TO-252)			Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case per Leg	3.5			$^{\circ}\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient per Leg	62.5			$^{\circ}\text{C}/\text{W}$

Note: Pulse test:300us pulse width, duty cycle=2%

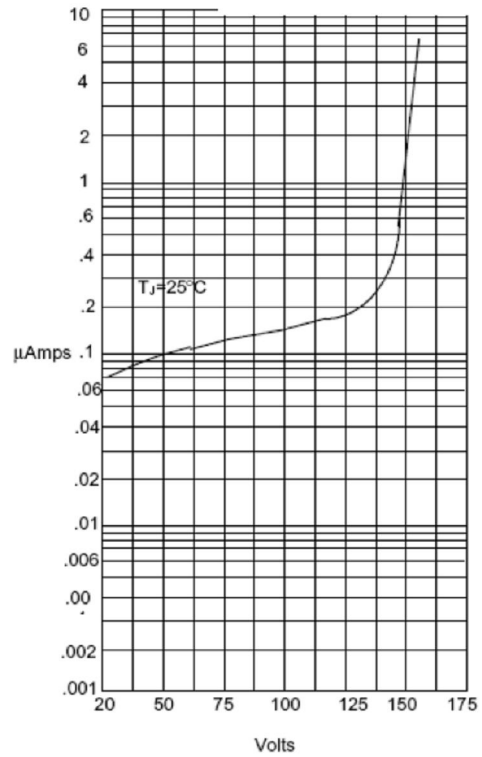
Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Figure 1
Typical Forward Characteristics



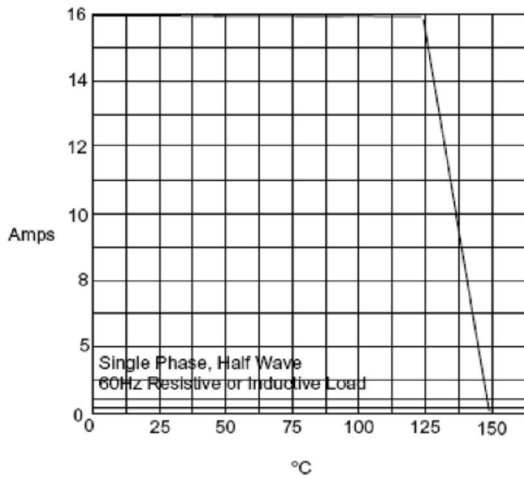
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2
Typical Revers



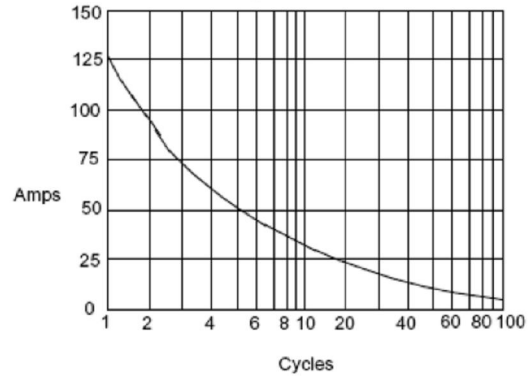
Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

Package Outline Dimensions

in millimeters **TO-252(D-PAK)**

