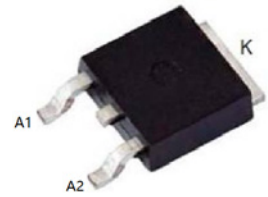


## Features

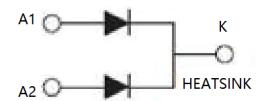
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Low forward voltage, high efficiency
- Guarding for over voltage protection



Package: TO-252 (DPAK)

## Mechanical Data

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



Schematic Diagram

## Maximum Ratings & Electrical Characteristics

(T<sub>A</sub>=25°C unless otherwise noted)

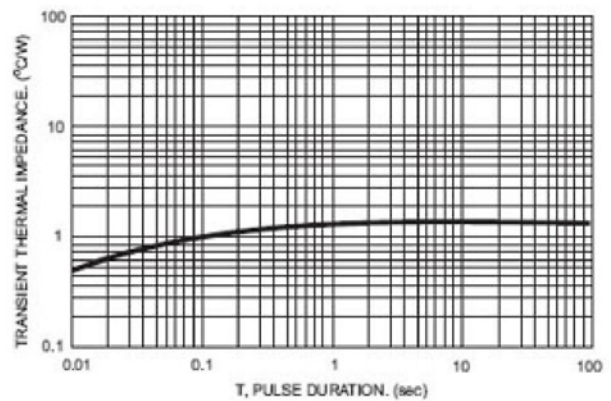
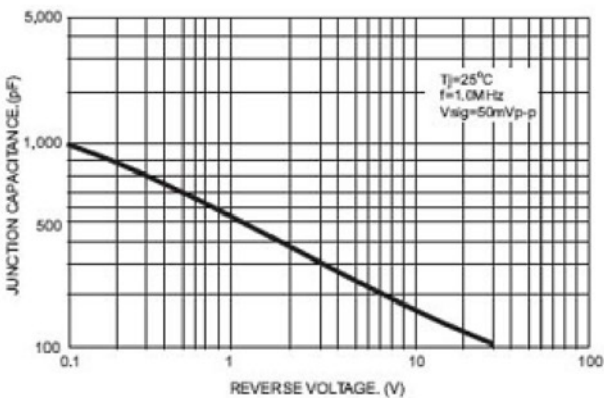
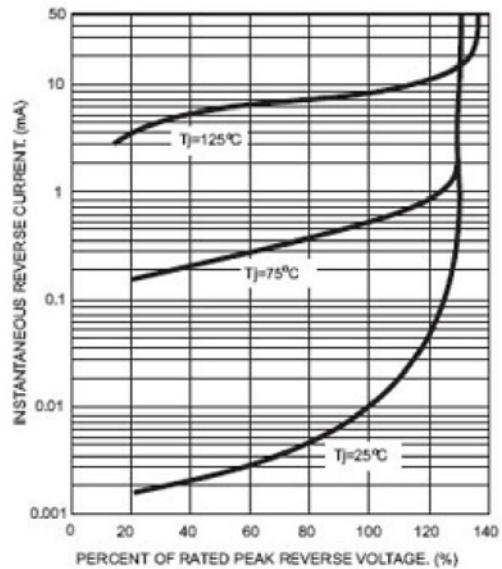
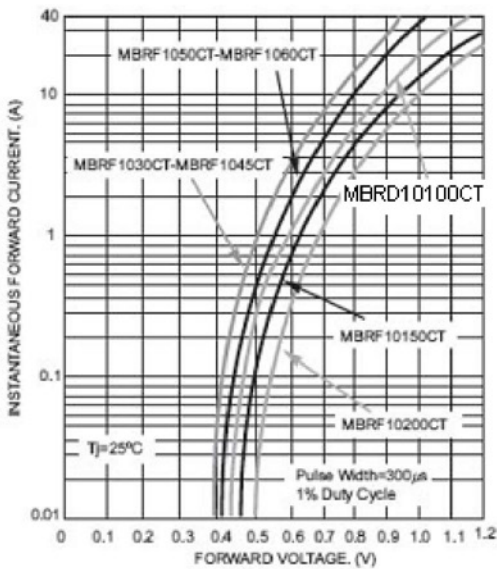
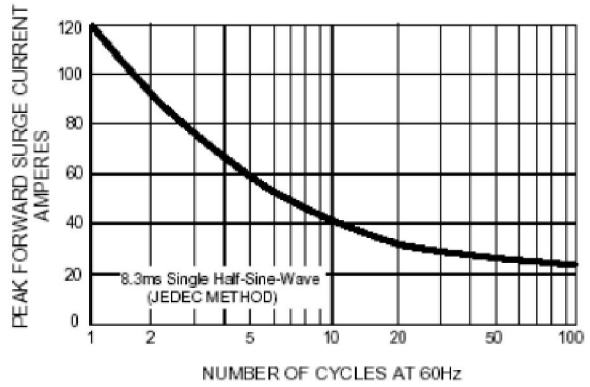
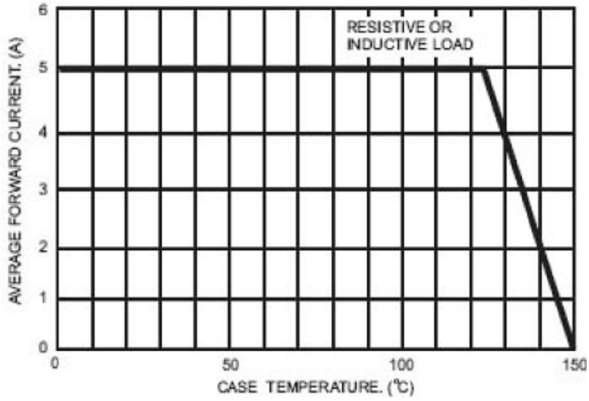
Parameter	Test Conditions		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage			V <sub>RRM</sub>	100	V
Working Peak Reverse Voltage			V <sub>RWM</sub>	100	V
Maximum DC Blocking Voltage			V <sub>DC</sub>	100	V
Maximum Average Forward Rectified Current @ T <sub>c</sub> =105°C	Total Device		I <sub>F(AV)</sub>	10	A
	Per Diode			5	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode			I <sub>FSM</sub>	120	A
Peak repetitive Reverse Current Per Leg at tp=2.0μs ,1KHz			I <sub>RRM</sub>	1.0	A
Voltage Rate of Change (rated V <sub>R</sub> )			Dv/dt	10000	V/μs
Operating Junction Temperature Range			T <sub>J</sub>	- 55 to +150	°C
Storage Temperature Range			T <sub>STG</sub>	- 55 to +150	°C
Maximum Instantaneous Forward Voltage per Leg	I <sub>F</sub> =5A	T <sub>C</sub> =25°C	V <sub>F</sub>	0.85	V
	I <sub>F</sub> =5A	T <sub>C</sub> =125°C		0.75	
Maximum Reverse Current per Leg at Working Peak Reverse Voltage	T <sub>J</sub> =25°C		I <sub>R</sub>	200	μA
	T <sub>J</sub> =100°C			15	mA
<b>Thermal Characteristics (T<sub>A</sub>=25°C unless otherwise noted)</b>					
<b>Symbol</b>	<b>Parameter</b>	<b>Typ.(TO-252)</b>			<b>Unit</b>
R <sub>θJC</sub>	Thermal Resistance, Junction to Case per Leg	3.5			°C/W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient per Leg	62.5			°C/W

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

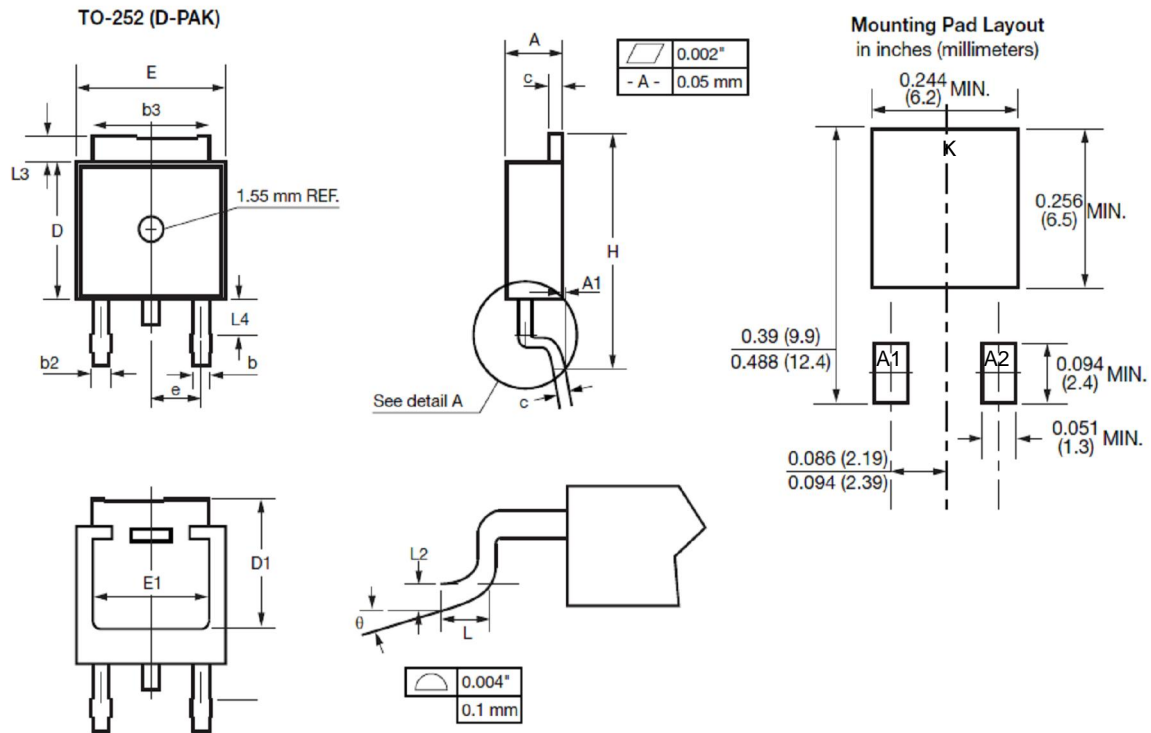
# MBRD10100CT

Schottky Barrier Rectifier  
 Reverse Voltage 100V Forward Current 10A

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



## Package Outline Dimensions TO-252 (DPAK)



SYMBOL	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
A	0.086	0.094	2.19	2.38
A1	-	0.005	-	0.13
b	0.025	0.035	0.64	0.89
b2	0.033	0.045	0.84	1.14
b3	0.205	0.215	5.21	5.46
c	0.018	0.024	0.46	0.61
D	0.235	0.250	5.97	6.22
D1	0.205	-	5.21	-
E	0.250	0.265	6.35	6.73
E1	0.190	-	4.83	-
e	0.090 BSC.		2.29 BSC.	
H	0.380	0.410	9.65	10.41
L	0.055	0.070	1.40	1.78
L2	0.020 BSC.		0.51 BSC.	
L3	0.035	0.050	0.89	1.27
L4	0.025	0.039	0.64	1.01
θ	0°	8°	0°	8°

**Note**

- Conforms to JEDEC TO-252 variation AA except dimension "D"