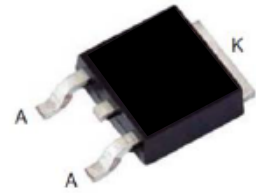


MBRD10100CT

Schottky Barrier Rectifier
Reverse Voltage 100 V Forward Current 10 A

Features

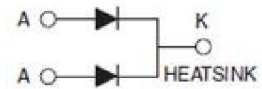
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Low forward voltage, high efficiency
- Guarding for over voltage protection



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_A=25°C unless otherwise noted)

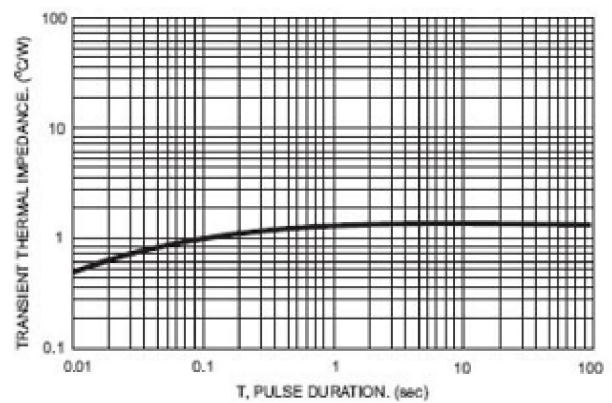
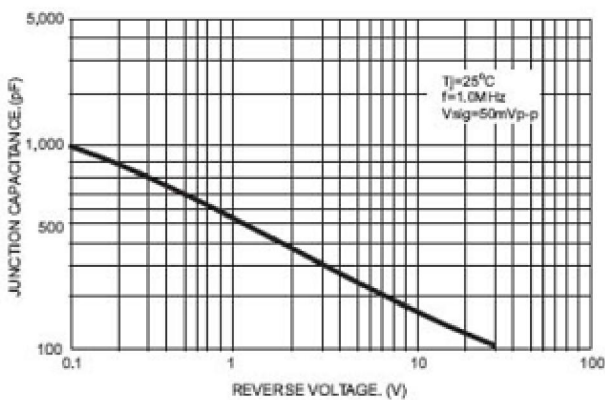
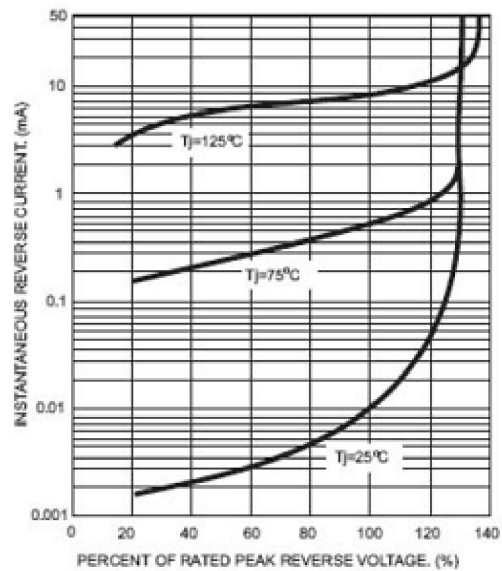
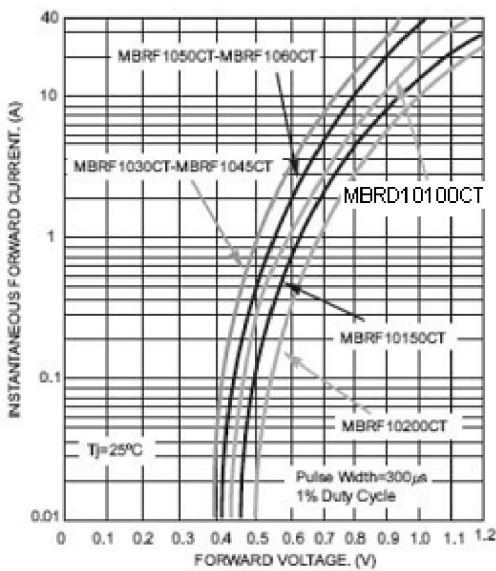
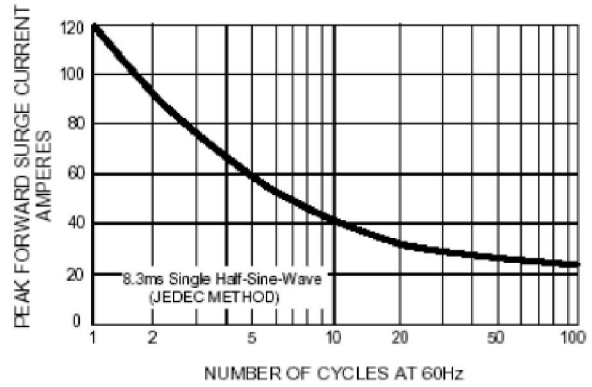
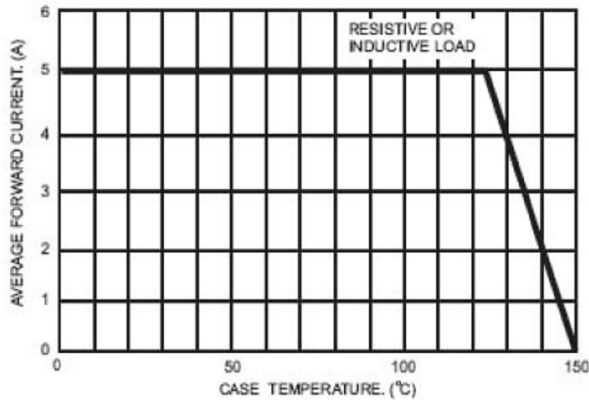
Parameter	Test Conditions		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage			V _{RRM}	100	V
Working Peak Reverse Voltage			V _{RWM}	100	V
Maximum DC Blocking Voltage			V _{DC}	100	V
Maximum Average Forward Rectified Current @ T _c =105°C	Total Device		I _{F(AV)}	10	A
	Per Diode			5	
Peak Forward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

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

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Schottky Barrier Rectifier
Reverse Voltage 100 V Forward Current 10 A

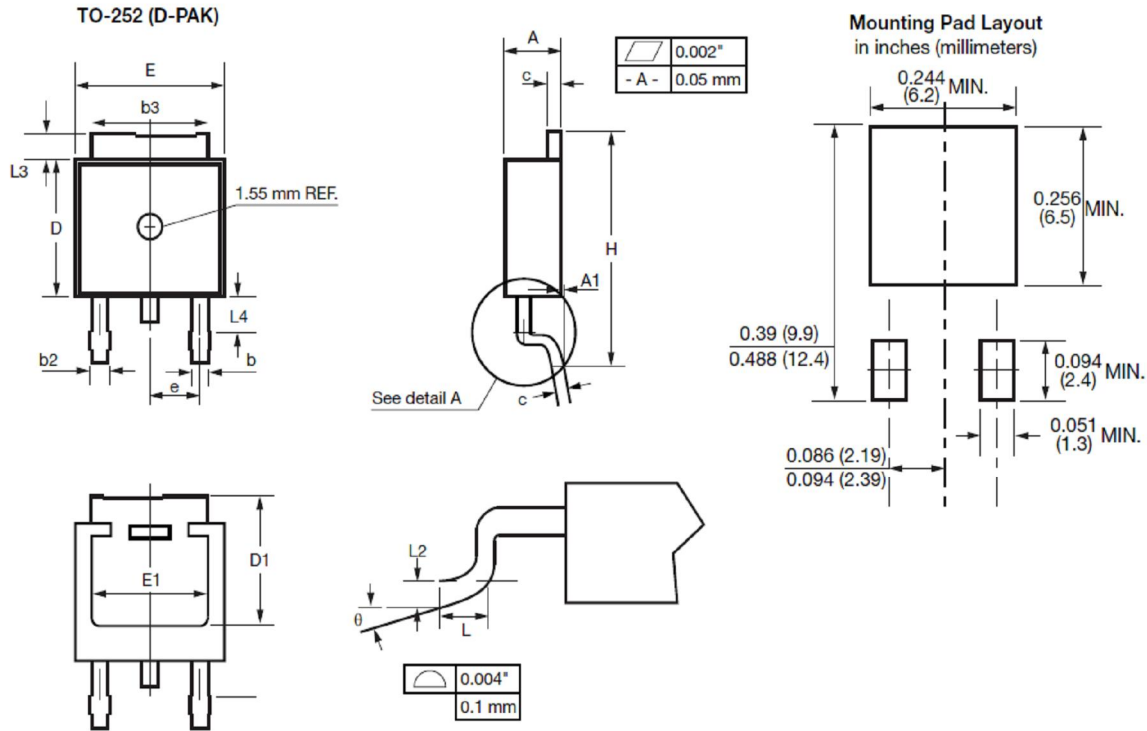
Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

in millimeters

TO-252



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"