

MBR40150CT / MBRF40150CT

40A/150V Schottky Barrier Rectifier

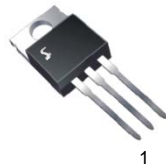
Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- Dual rectifier construction, positive center tap
- Low forward voltage, high efficiency
- Guardring for over voltage protection

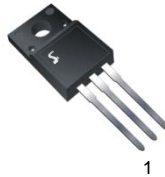
Mechanical Data

- Case: epoxy, molded
- Weight: 1.9grams (approximately)
- Finish: all external surfaces corrosion resistant and terminal leads readily solderable
- Lead temperature for soldering purpose: 260°C max. for 10 sec
- 50 units per plastic tube

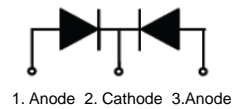
MBR40150CT
TO-220



MBRF40150CT
TO-220F



Schematic Diagram



Maximum Ratings and Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Unit
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	150	V
V _{RWM}	Working Peak Reverse Voltage	150	V
V _{DC}	Maximum DC Blocking Voltage	150	V
I _{F(AV)}	Maximum Average Forward Rectified Current @ T _C =105°C	Total Device: 40 Per Diode: 20	A
I _{FSM}	Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load Per Diode	200	A
I _{RRM}	Peak Repetitive Reverse Current Per Leg at tp=2.0µs, 1KHz	1.0	A
DV/dt	Voltage Rate of Change (rated V _R)	10000	V/µs
V _F	Maximum Instantaneous Forward Voltage Per Leg	I _F =20A, T _C =25°C	0.86
		I _F =20A, T _C =125°C	0.78
I _R	Maximum Reverse Current Per Leg at Working Peak Reverse Voltage	T _J =25°C	200
		T _J =100°C	15
V _{AC}	Isolation Voltage (TO-220F only) from Terminal to Heat sink t=1sec	1500	V
T _J	Operating Junction Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C

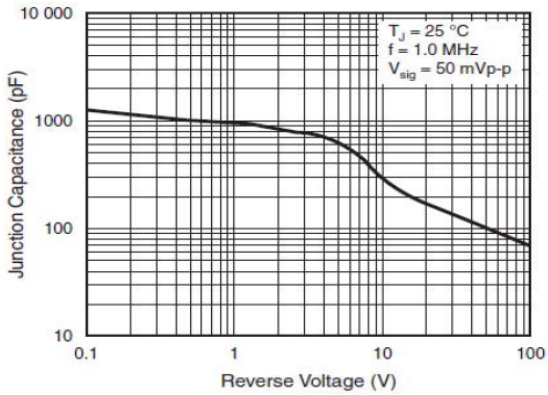
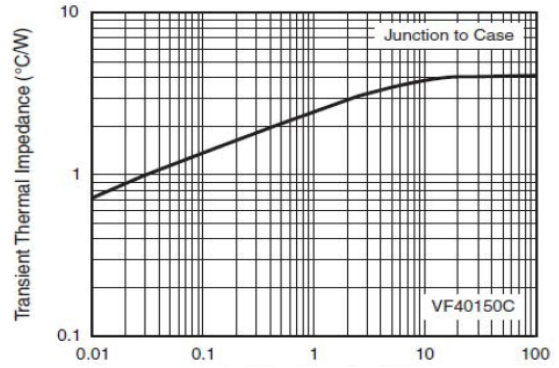
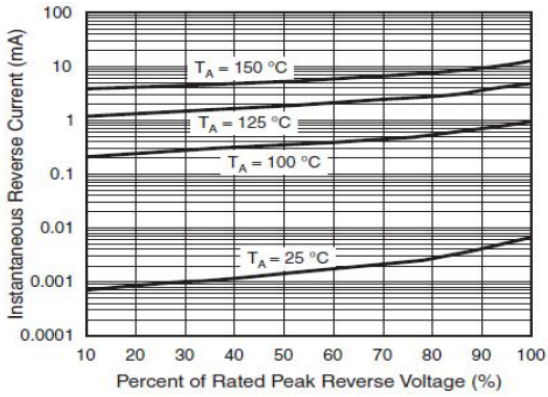
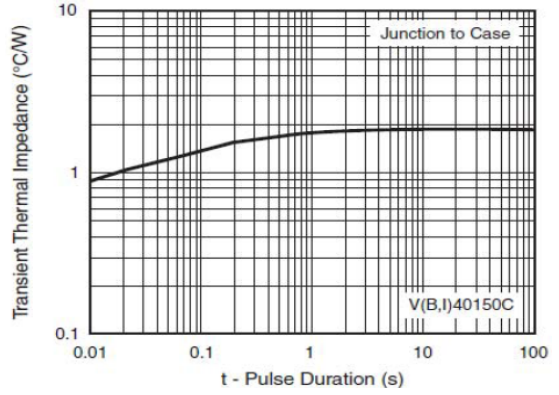
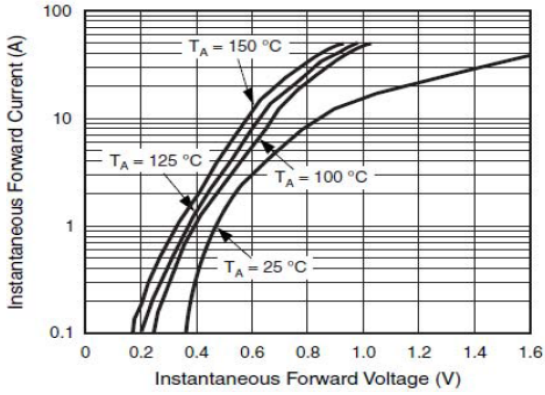
Thermal Resistance Characteristics

Symbol	Parameter	TO-220	TO-220F	Unit
R _{BJC}	Thermal Resistance, Junction-to-Case per Leg, Typ.	2.0	4.0	°C/W
R _{BJA}	Thermal Resistance, Junction-to-Ambient per Leg, Typ.	62.5	62.5	°C/W

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

Rating and Characteristic Curves

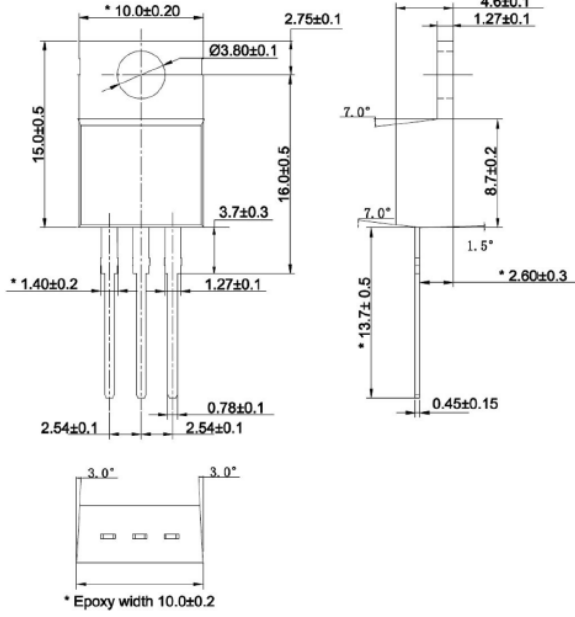
($T_A=25^\circ\text{C}$ Unless otherwise noted)



Package Outline Dimension

In millimeters

TO-220



TO-220F

