MBRS1035CT THRU MBRS10150CT

Dual Common Cathode Schottky Rectifiers

Features

* Low power loss, high efficiency
* Ideal for automated placement
* Guard-ring for overvoltage protection
* High surge current capability
* Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC

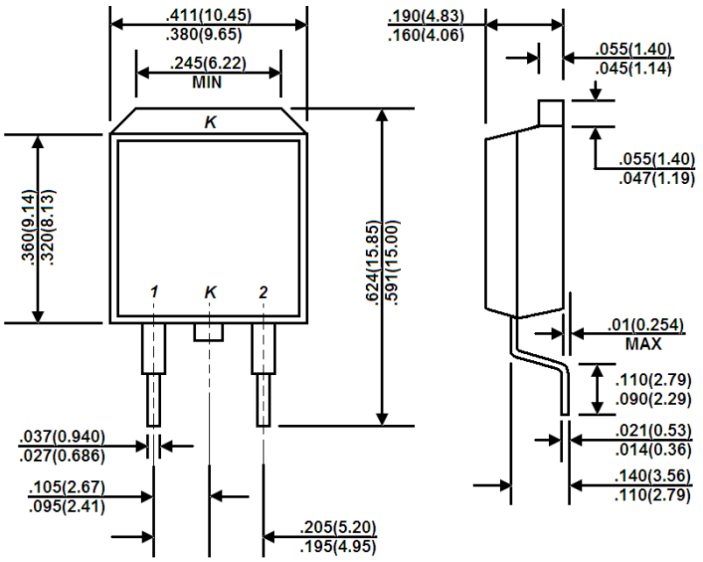
RoHS COMPLIANT

Mechanical Data

* Cases: TO-263AB Molded plastic
* Molding compound, UL flammability classification rating 94V-0
* Terminal: Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 1A whisker test
* Polarity: As marked

Package Outline Dimensions in inches (millimeters)

TO-263AB：



Maximum Ratings and Electrical Characteristics

Rating at 25 ℃ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbol	MBRS 1035 CT	MBRS 1045 CT	MBRS 1050 CT	MBRS 1060 CT	MBRS 1090 CT	MBRS 10100 CT	MBRS 10150 CT	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	35	45	50	60	90	100	150	V
Maximum RMS Voltage	V_{RMS}	24	31	35	42	63	70	105	V
Maximum D.C Blocking Voltage	V_{DC}	35	45	50	60	90	100	150	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10							A
Peak repetitive forward current (Rated VR, Square Wave, 20KHz)	IFRM	10							
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	120							A
Peak repetitive reverse surge current (Note 1)	I_{RRM}	1							A
Maximum instantaneous forward voltage (Note 2) IF= 5 A, T_J=25℃ IF= 5 A, T_J=125℃ IF= 10 A, T_J=25℃ IF= 10 A, T_J=125℃	V_F	0.70 0.57 0.80 0.67		0.80 0.65 0.90 0.75		0.85 0.75 0.95 0.85		0.88 0.78 0.98 0.88	V
Maximum reverse current @ rated VR T_J=25 ℃ T_J=100 ℃ T_J=125 ℃	I_R	0.1 15 -		10		- 5			mA
Voltage rate of change (Rated V_R)	dV/dt	10000							V/μs
Typical Thermal Resistance	$R_{\theta JC}$	2							℃/W
Operating and Storage Temperature Range	T_J/T_{STG}	-55 to +150							℃

Note:1、Note 1: tp = 2.0 μs, 1.0KHz 2、Pulse test with PW=300μs, 1% duty cycle

Ratings and Characteristic Curves

FIG.1 FORWARD CURRENT DERATING CURVE

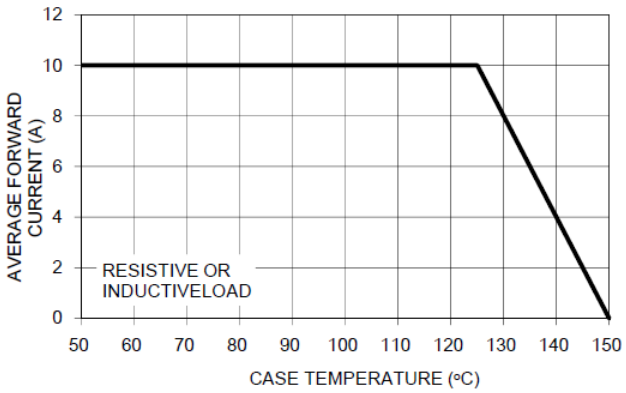


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

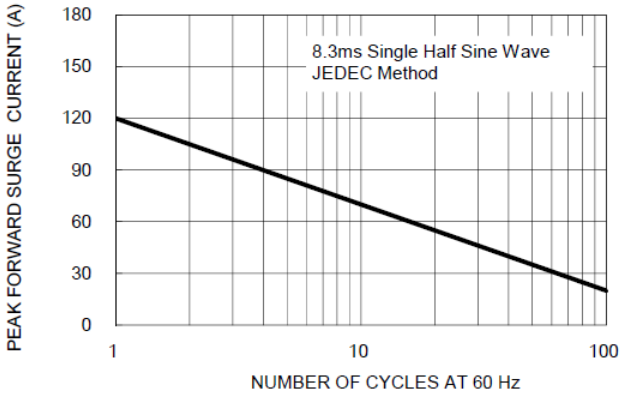


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

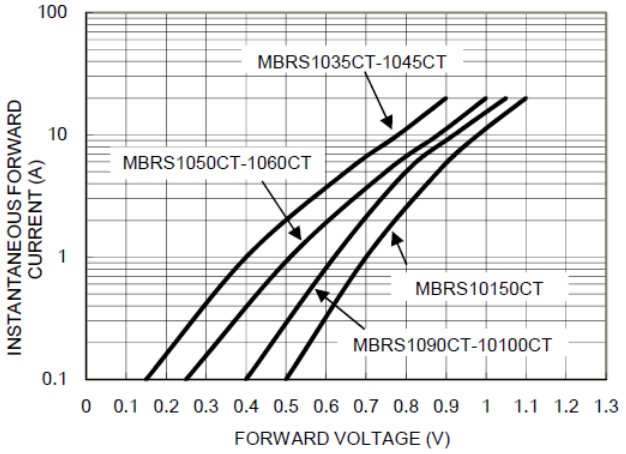


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

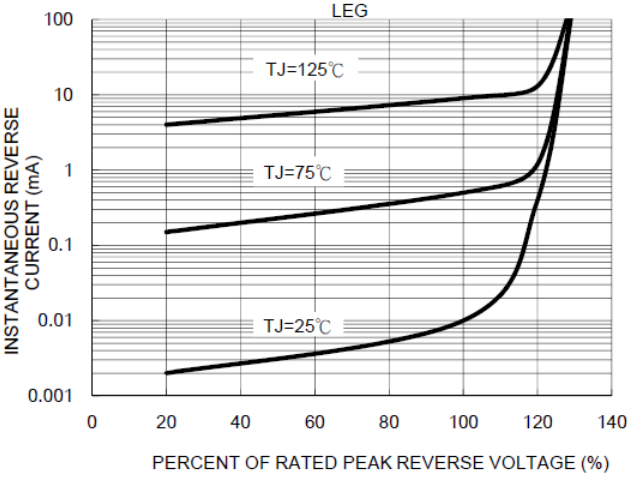


FIG. 5 TYPICAL JUNCTION CAPACITANCE

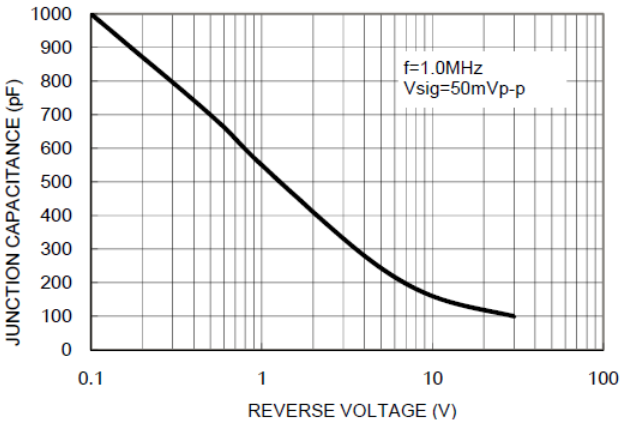
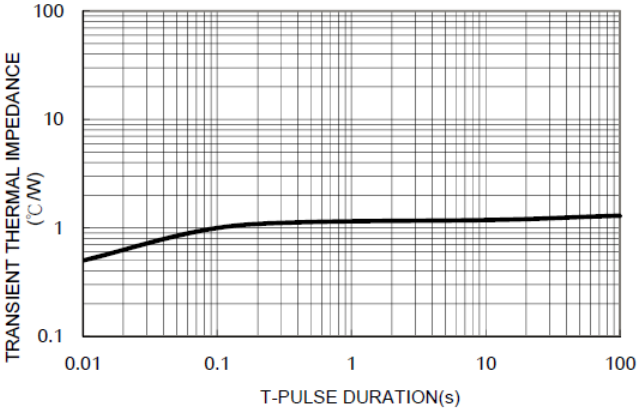


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



Ordering Information

Part No.	Package	Packing
MBRS1035CT~MBRS10150CT	TO-263AB	50pcs/Tube