

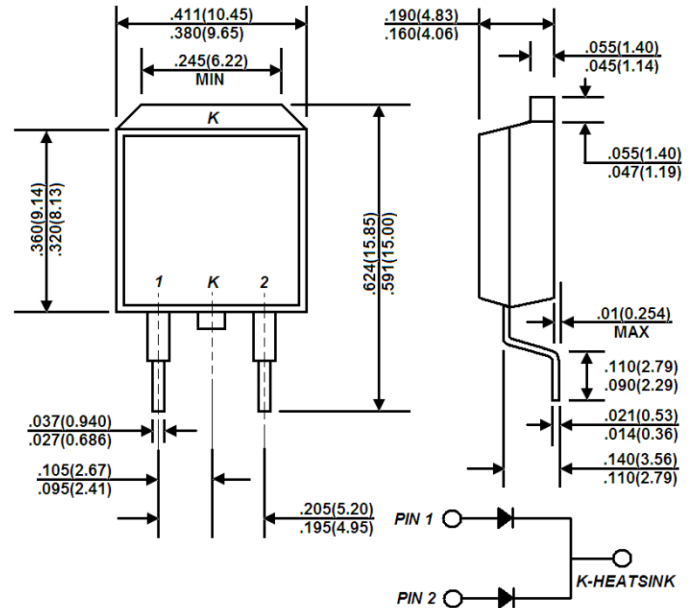
Features

- * 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



Package Outline Dimensions in inches (millimeters)

D²PAK:



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

Maximum Ratings and Electrical Characteristics

Rating at 25 °C 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 2035 CT	MBRS 2045 CT	MBRS 2050 CT	MBRS 2060 CT	MBRS 2090 CT	MBRS 20100 CT	MBRS 20150 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	$I_{F(AV)}$	20							A
Peak repetitive forward current (Rated VR, Square Wave, 20KHz)	I_{FRM}	20							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150							A
Peak repetitive reverse surge current (Note 1)	I_{RRM}	1	0.5					A	
Maximum instantaneous forward voltage (Note 2)	V_F	IF= 10 A, T _J =25°C IF= 10 A, T _J =125°C IF= 20 A, T _J =25°C IF= 20 A, T _J =125°C	0.70 0.57 0.84 0.72	0.80 0.70 0.95 0.85	0.85 0.75 0.95 0.85	0.99 0.87 1.23 1.10	V		
Maximum reverse current @ rated VR	I_R	0.1							mA
		15	10	5					
Voltage rate of change (Rated VR)	dV/dt	10000							V/μs
Typical Thermal Resistance	$R_{θJC}$	1.5				2.0			°C/W
Operating and Storage Temperature Range	T _J /T _{STG}	-55 to +150							°C

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

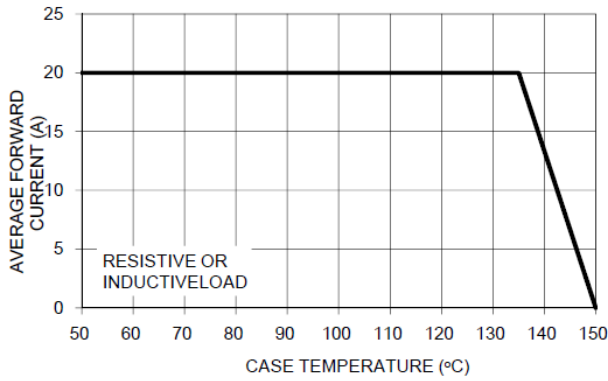


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

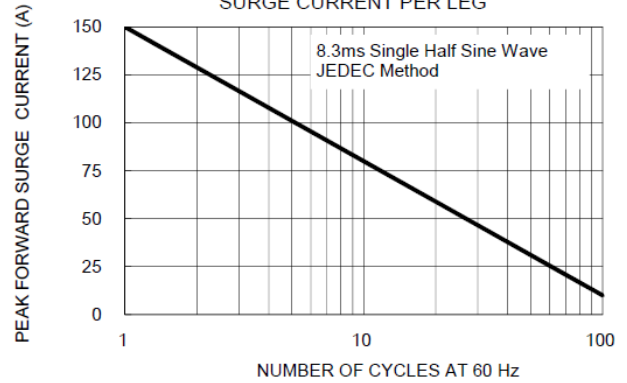


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

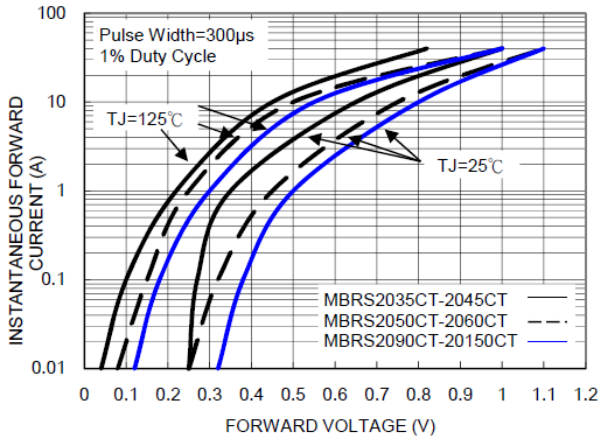


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

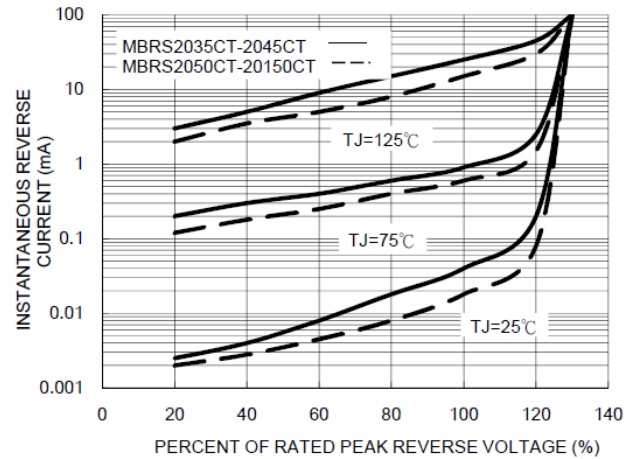


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

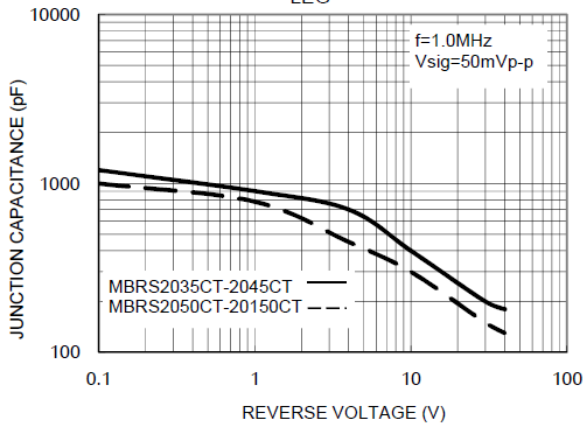
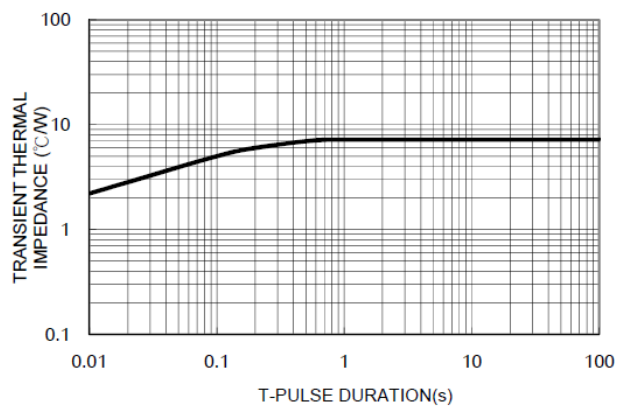


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG





MBRS2035CT THRU MBRS20150CT

Dual Common Cathode Schottky Rectifiers

Ordering Information

Part No.	Package	Packing
MBRS2035CT~MBRS20150CT	TO-263AB	50pcs/Tube