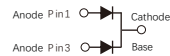


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10S
- Component in accordance to RoHS 2015/863/EU

TO-263(D²PAK)



MECHANICAL DATA

- Case: JEDEC TO-263(D²PAK) molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25 °C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

Parameter	Symbols	MUR 3020D1	MUR 3040D1	MUR 3060D1	Units
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	Volts
Maximum RMS voltage	V_{RMS}	140	280	420	Volts
Maximum DC blocking voltage	V_{DC}	200	400	600	Volts
Maximum average forward rectified current(see Fig.1)	Per leg	$I_{(AV)}$	15.0		Amps
	Total device		30.0		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	220		Amps	
Maximum instantaneous forward voltage at 15.0 A per leg(Note 1)	V_F	1.05	1.30	1.7	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_a = 25^{\circ}C$	5		μA	
	$T_a = 125^{\circ}C$	50			
Maximum Reverse Recovery Time (Note 2)	T_{rr}	35		ns	
Typical thermal resistance (Note 3)	$R_{\theta JC}$	2.0		$^{\circ}C/W$	
Operating junction temperature range	T_J	-55 to +150		$^{\circ}C$	
Storage temperature range	T_{STG}	-55 to +150		$^{\circ}C$	

- Notes :
1. Pulse test: 300 μs pulse width,1% duty cycle
 2. Reverse recovery test conditions $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
 3. Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES MUR3020D1 THRU MUR3060D2

FIG.1-FORWARD CURRENT DERATING CURVE

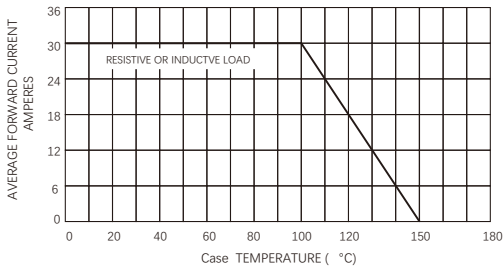


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

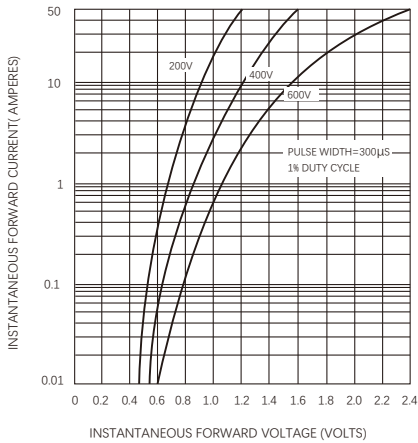


FIG.5-TYPICAL JUNCTION CAPACITANCE

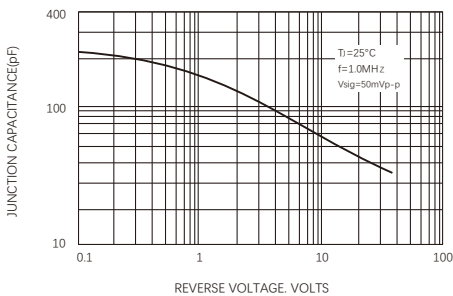


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

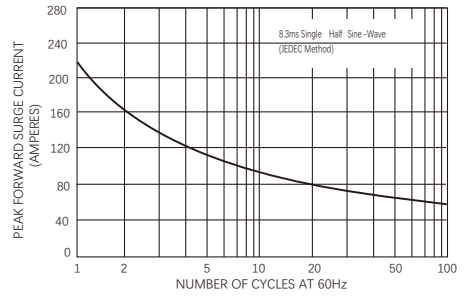


FIG.4-TYPICAL REVERSE CHARACTERISTICS

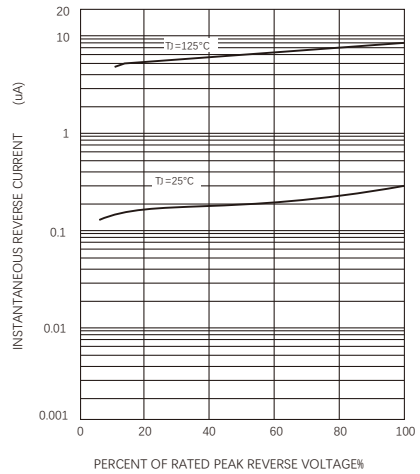
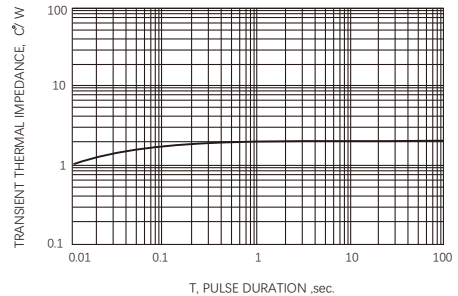
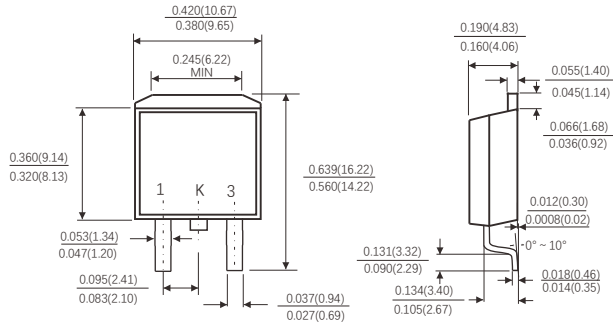


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

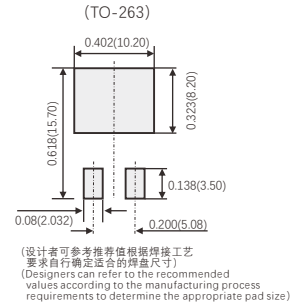


PACKAGE OUTLINE DIMENSIONS

TO-263(D²PAK)



Suggested Pad Layout



Dimensions in inches and (millimeters)

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