SEMICONDUCTOR

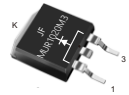
MUR1020M3 THRU MUR1060M3

POLYIMIDE PASSIVATED SUPER FAST RECTIFIER

Reverse Voltage - 200 -600 Volts
Forward Current - 10.0Amperes

FEATURES

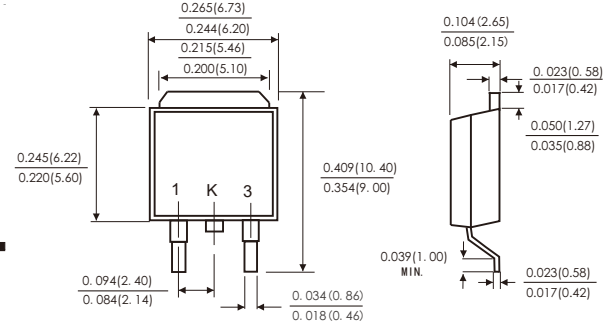
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU



HEATSINK

TO-252

(DPAK)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC TO-252 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 1020M3	MUR 1040M3	MUR 1060M3	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)		$I_{(AV)}$	10.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	120			Amps
Maximum instantaneous forward voltage at 10.0 A(Note 1)		V_F	0.975	1.3	1.7	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_A =25°C	I_R	5			μA
	T_A =125°C		50			
Maximum Reverse Recovery Time (Note 2)		Trr	35			ns
Typical thermal resistance (Note 3)		$R_{\theta JC}$	2.5			°C/W
Operating junction temperature range		T_J	-55 to+150			°C
Storage temperature range		T_{STG}	-55 to+150			°C

Notes: 1. Pulse test: 300μs pulse width,1% duty cycle

2. Reverse recovery test conditions I_F=0.5A,I_R=1.0A, Irr=0.25A

3. Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

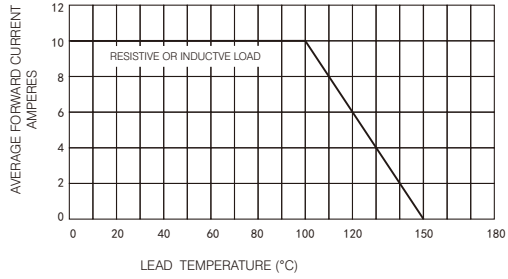


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

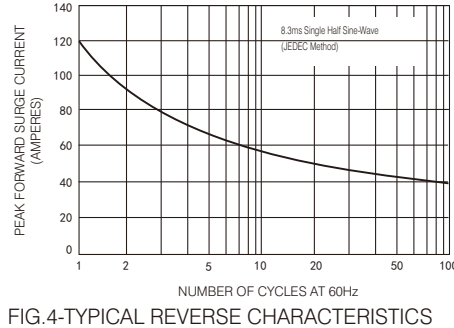


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

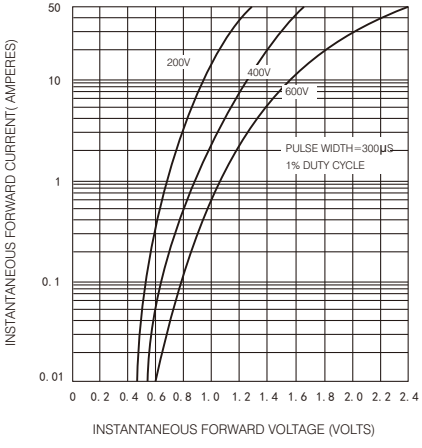


FIG.4-TYPICAL REVERSE CHARACTERISTICS

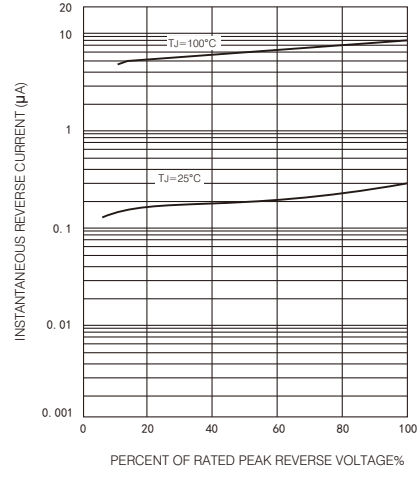
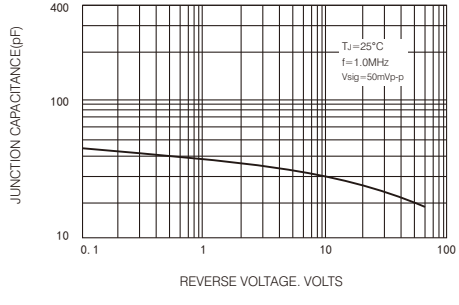


FIG.5-TYPICAL JUNCTION CAPACITANCE



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