MURF1030

POLYIMIDE PASSIVATED SUPER FAST RECTIFIER

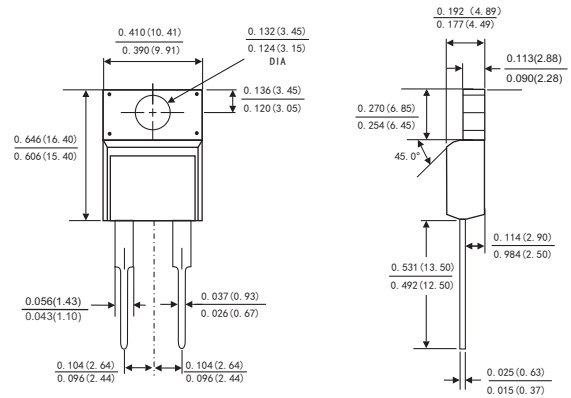
Reverse Voltage - 300 Volts
Forward Current - 10.0Amperes

SEMICONDUCTOR

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 2011/65/EU

ITO-220AC



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC ITO-220AB-N 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	Value	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	300	V
Maximum RMS voltage		V_{RMS}	210	V
Maximum DC blocking voltage		V_{DC}	300	V
Maximum average forward rectified current(see Fig.1)		$I_{F(AV)}$	10.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	120	A
Maximum instantaneous forward voltage at 10.0 A(Note 1)	T_A=25°C	V_F	1. 2	V
	T_A=125°C		0. 95	
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_A =25°C	I_R	5	μA
	T_A =125°C		TYP. 20 MAX. 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+175	°C
Storage temperature range		T_{STG}	-55 to+175	°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, Irr=0.25A
3. Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES MURF1030

FIG.1-FORWARD CURRENT DERATING CURVE

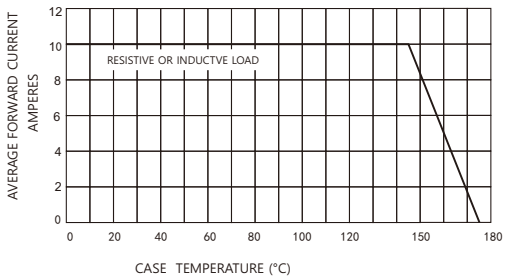


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

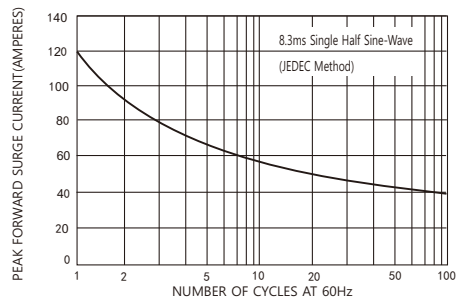


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

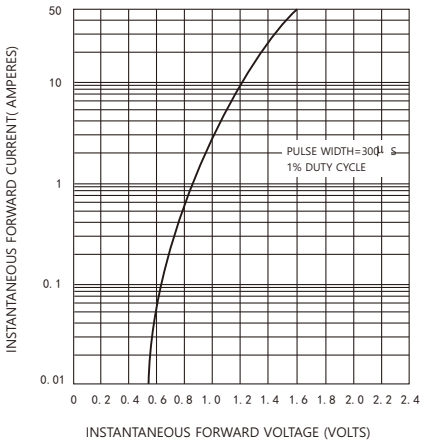


FIG.4-TYPICAL REVERSE CHARACTERISTICS

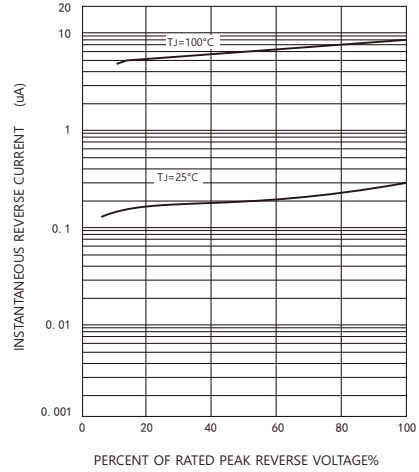
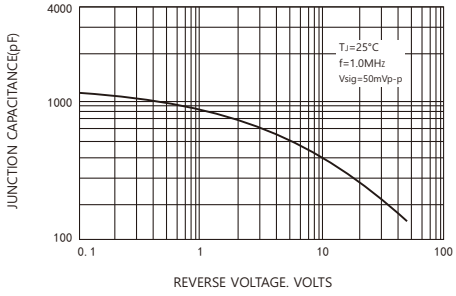


FIG.5-TYPICAL JUNCTION CAPACITANCE



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