



MURF1005 THRU MURF1060

SUPER FAST RECOVERY SILICON RECTIFIER

Reverse Voltage - 50 to 600 Volts

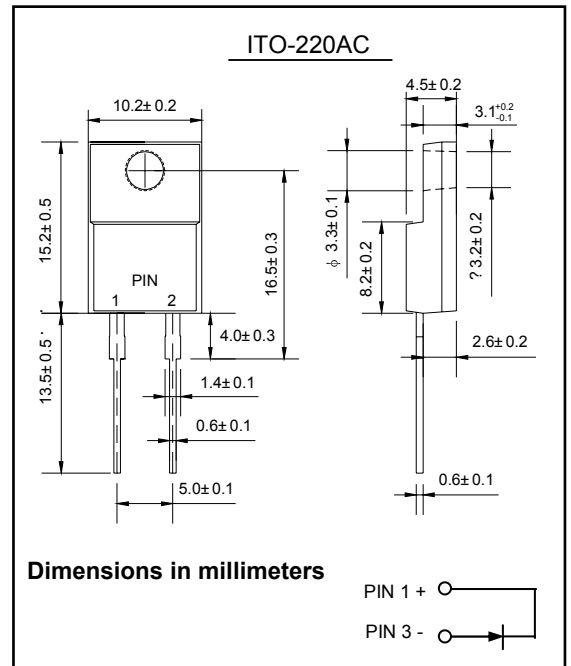
Forward Current - 10.0 Ampere

FEATURES

- Glass Passivated Die Construction
- Super-Fast Switching
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

MECHANICAL DATA

- Case: ITO-220AC, Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 11.5 cm·kg (10 in·lbs) Max.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	MURF 1005	MURF 1010	MURF 1015	MURF 1020	MURF 1030	MURF 1040	MURF 1060	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	150	200	300	400	600	V
RMS Reverse Voltage	VR(RMS)	35	70	105	140	210	280	420	V
Average Rectified Output Current @TC = 105°C	Io	10.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150							A
Forward Voltage @IF = 10.0A	VFM	0.95				1.3		1.7	V
Peak Reverse Current At Rated DC Blocking Voltage @TA = 25°C @TA = 125°C	IRM	10 500							µA
Reverse Recovery Time (Note 1)	trr	35				50			nS
Typical Junction Capacitance (Note 2)	Cj	70				50			pF
Operating and Storage Temperature Range	Tj, TSTG	-65 to +150							°C

Note: 1. Measured with $I_F = 0.5A$, $I_R = 1.0A$, $IRR = 0.25A$.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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RATINGS AND CHARACTERISTIC CURVES

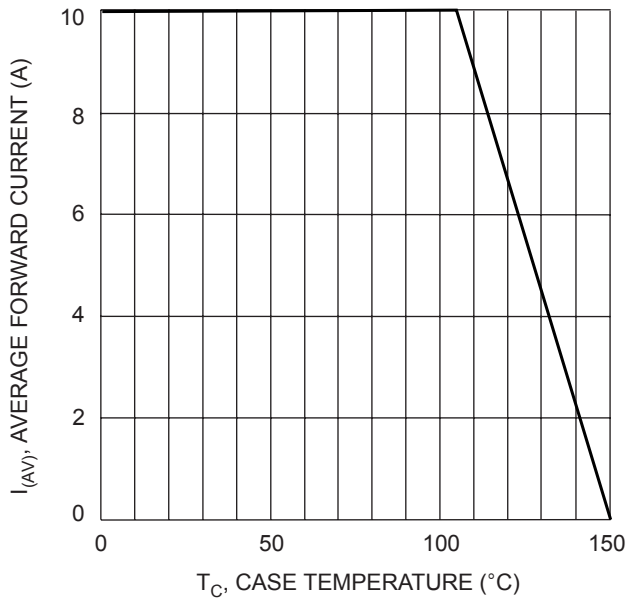


Fig. 1 Forward Current Derating Curve

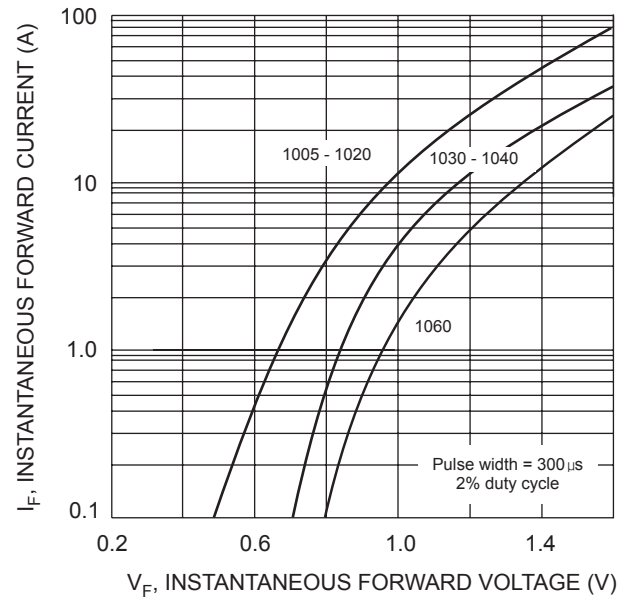


Fig. 2 Typical Forward Characteristics

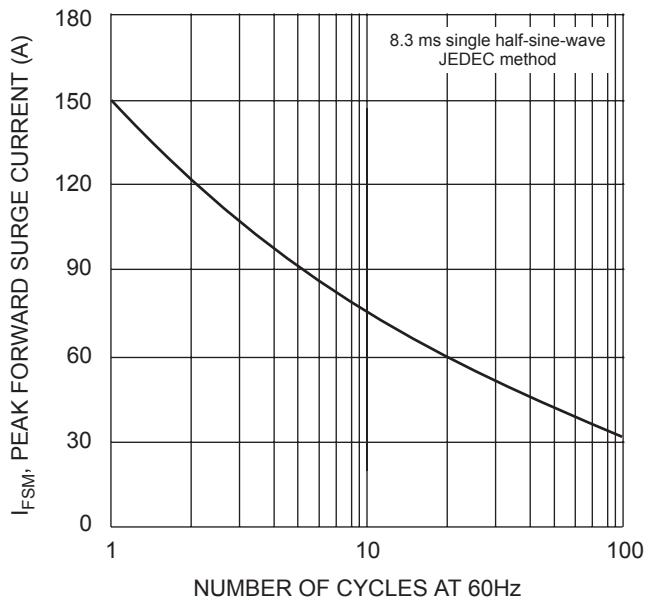


Fig. 3 Max Non-Repetitive Surge Current

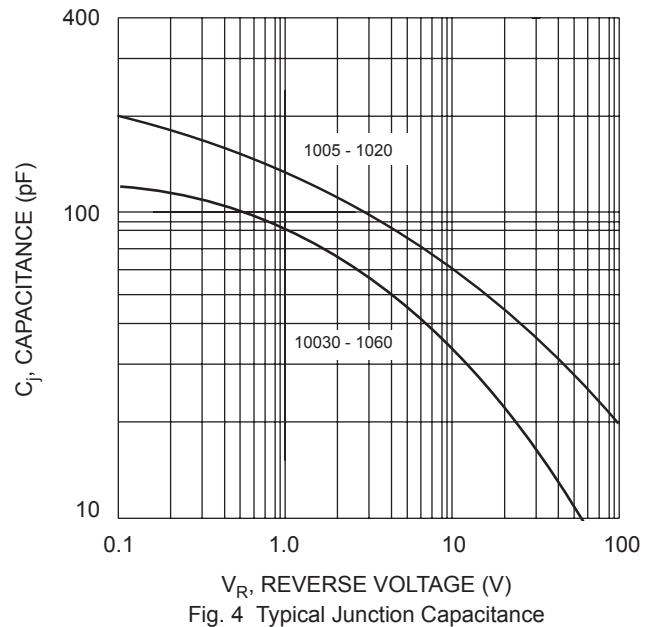


Fig. 4 Typical Junction Capacitance