



MURF1005 THRU MURF1060

SUPER FAST RECOVERY SILICON RECTIFIER

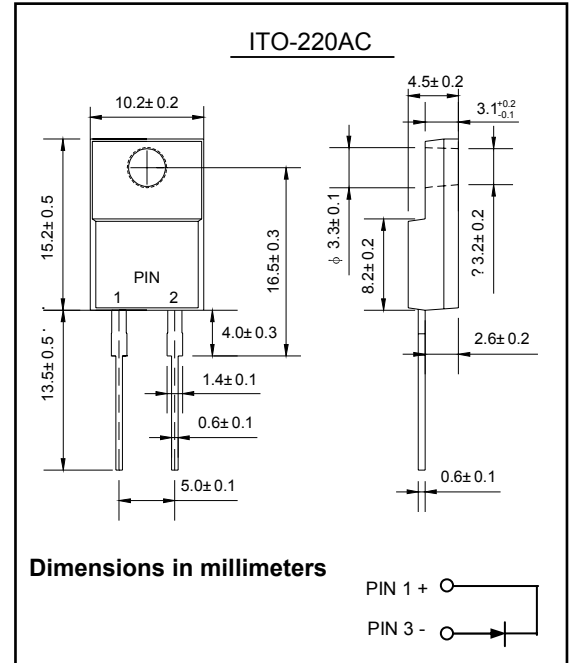
Reverse Voltage - 50 to 600 Volts Forward Current - 10.0 Ampere

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	V _{RRM}									
Working Peak Reverse Voltage	V _{RWM}	50	100	150	200	300	400	600	V	
DC Blocking Voltage	V _R									
RMS Reverse Voltage	V _{R(RMS)}	35	70	105	140	210	280	420	V	
Average Rectified Output Current @T _C = 105°C	I _o	10.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150								A
Forward Voltage @I _F = 10.0A	V _{FM}		0.95				1.3	1.7	V	
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}				10				μA	
					500					
Reverse Recovery Time (Note 1)	t _{rr}		35				50		nS	
Typical Junction Capacitance (Note 2)	C _j		70				50		pF	
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150							°C	

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 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

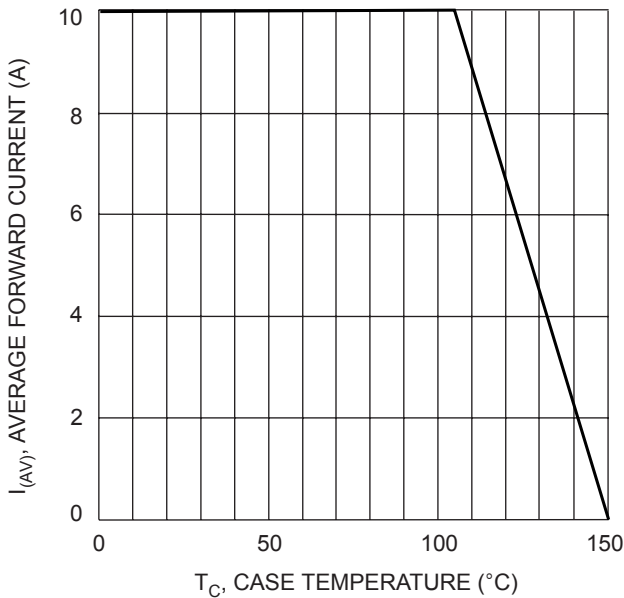


Fig. 1 Forward Current Derating Curve

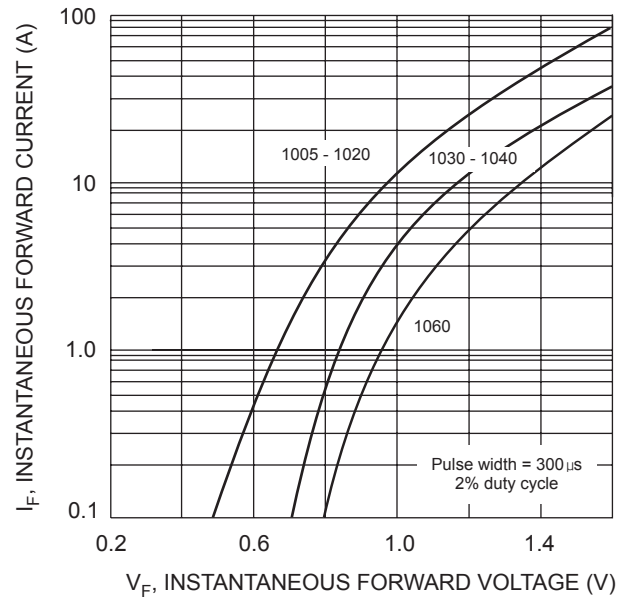


Fig. 2 Typical Forward Characteristics

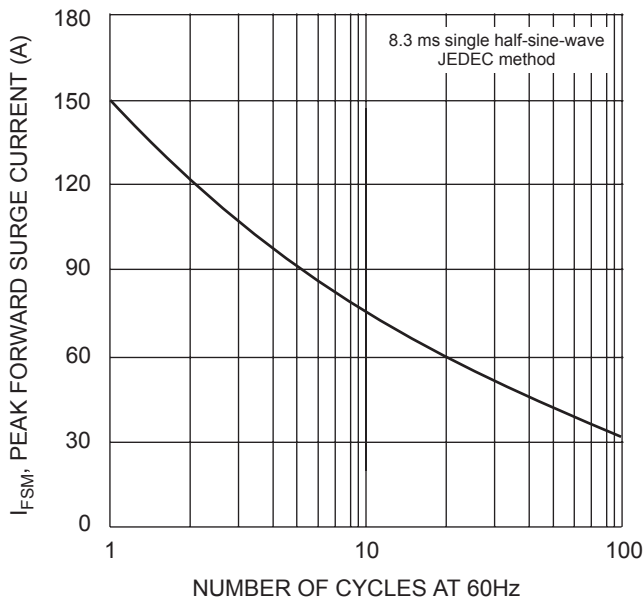


Fig. 3 Max Non-Repetitive Surge Current

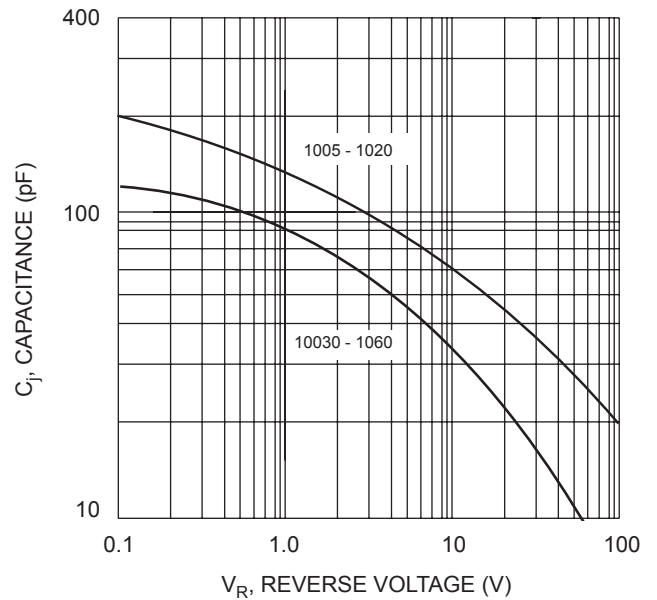


Fig. 4 Typical Junction Capacitance