

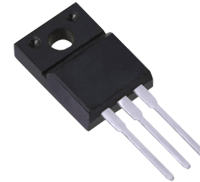
# MURF1010CT-MURF1060CT

## 10.0A GLASS PASSIVATED SUPER FAST RECTIFIER

### Features

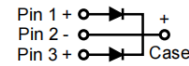
- Glass Passivated Die Construction
- Super-Fast Switching
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### TO-220F



### Mechanical Data

- Case: TO-220F, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 1.81 grams (approx.)
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version**



### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	SYMBOL	MURF 1010CT	MURF 1020CT	MURF 1030CT	MURF 1040CT	MURF 1050CT	MURF 1060CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	100	200	300	400	500	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	210	280	350	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	200	300	400	500	600	V
Maximum Average Forward Rectified Current T <sub>c</sub> =100°C	I <sub>F(AV)</sub>	10.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	90						A
Maximum Instantaneous Forward Voltage @ 5.0 A	V <sub>F</sub>	1.0		1.3		1.7		V
Maximum DC Reverse Current @T <sub>J</sub> =25°C At Rated DC Blocking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	10.0 250						uA uA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	35						nS
Typical junction Capacitance (Note 2)	C <sub>J</sub>	170			130			pF
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	3.5						°CW
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150						°C

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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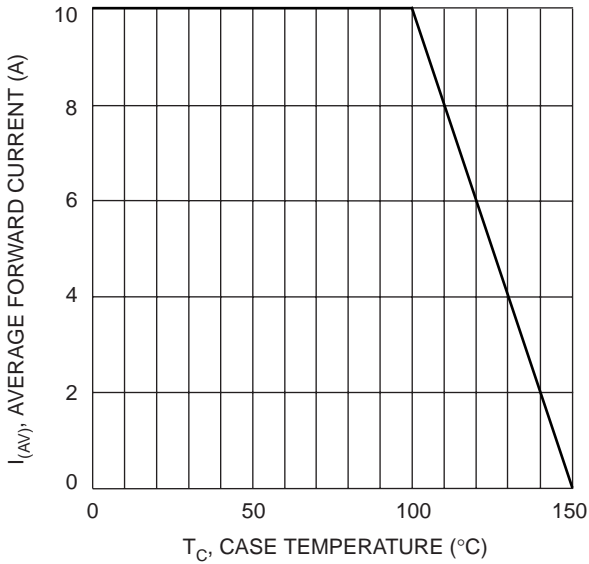


Fig. 1 Forward Current Derating Curve

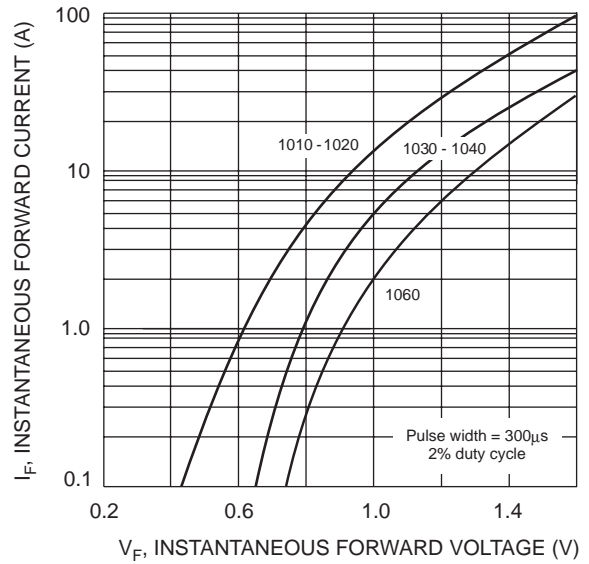


Fig. 2 Typical Forward Characteristics

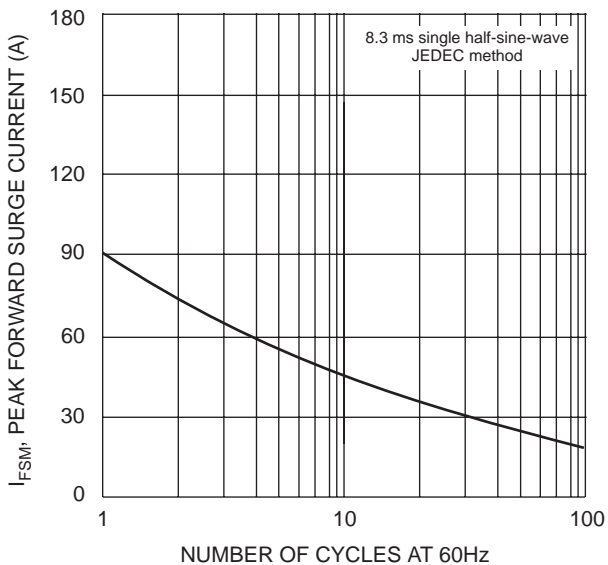


Fig. 3 Max Non-Repetitive Surge Current

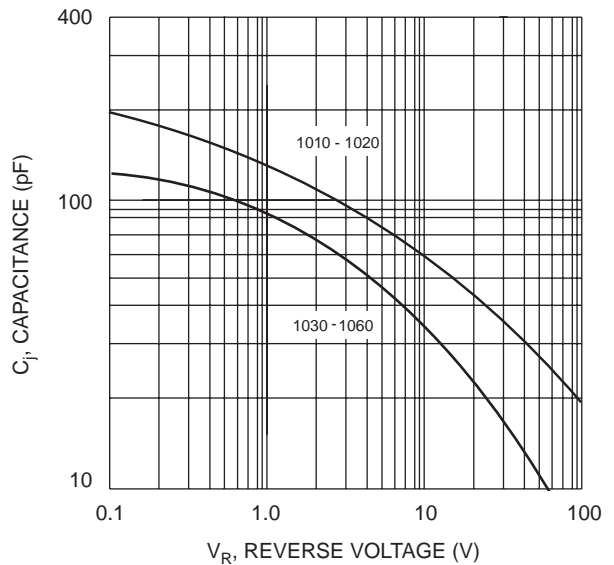


Fig. 4 Typical Junction Capacitance