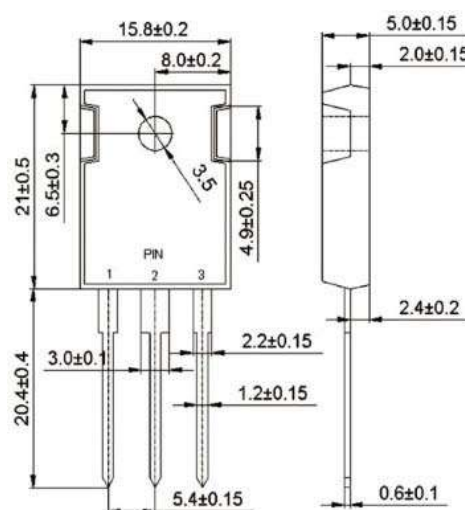


## 30.0A GLASS PASSIVATED SUPERFAST RECTIFIER

### 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-0

### TO-3P/TO-247AD



### Mechanical Data:

- Case: TO-3P/TO-247AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 11.5 cm·kg (10 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version**

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	MUR3020PT	MUR3040PT	MUR3060PT	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	600	V
Working Peak Reverse Voltage	$V_{RWM}$				
DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	V
Average Rectified Output Current @ $T_C = 125^\circ\text{C}$	$I_o$	30.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	350			A
Forward Voltage @ $I_F=15.0\text{A}$	$V_{FM}$	0.98	1.3	1.6	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$		10 400		$\mu\text{A}$
Reverse Recovery Time (Note 1)	$t_{rr}$	50			nS
Typical Junction Capacitance (Note 2)	$C_j$	170		130	pF
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +150			$^\circ\text{C}$

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

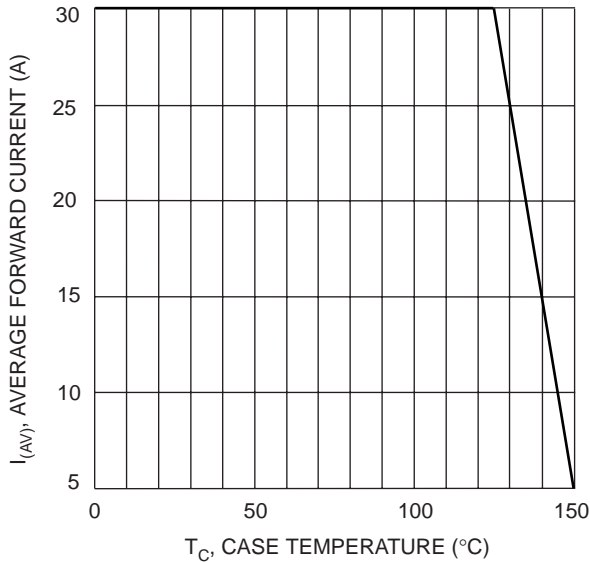


Fig. 1 Forward Current Derating Curve

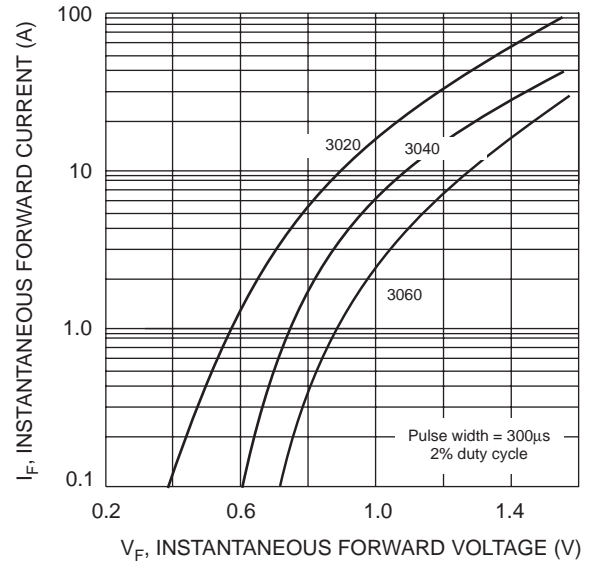


Fig. 2 Typical Forward Characteristics

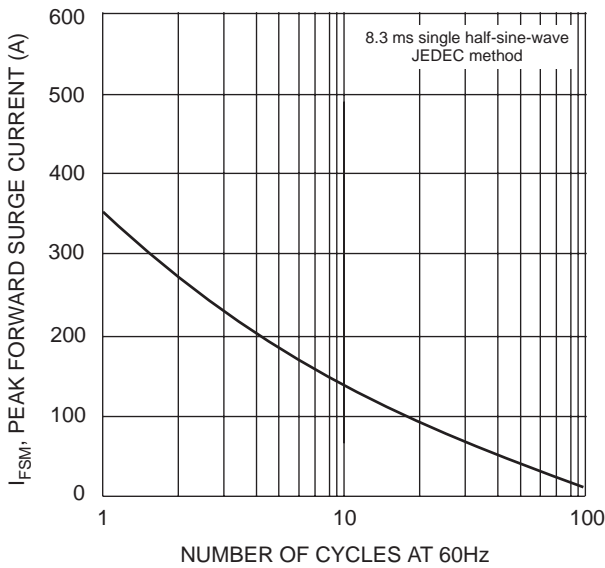


Fig. 3 Max Non-Repetitive Surge Current

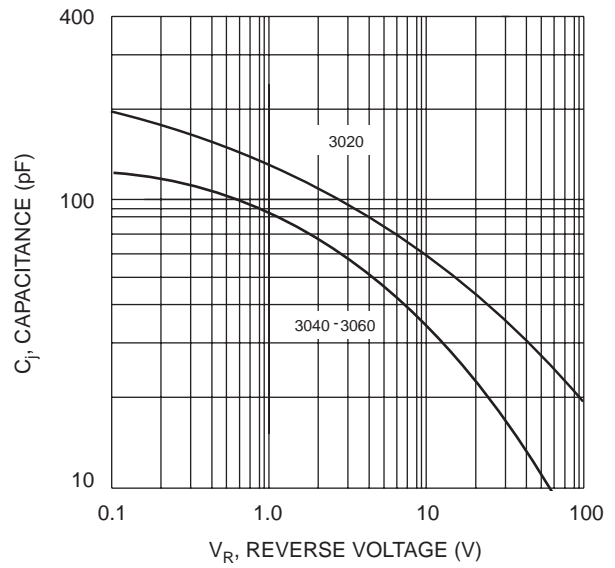


Fig. 4 Typical Junction Capacitance