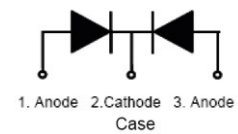
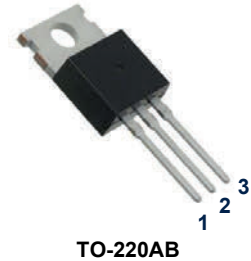


GSMUR3020CT thru GSMUR3060CT

Glass Passivated Super Fast Rectifiers
 Reverse Voltage 200V to 600V Forward Current 30A

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



Schematic Diagram

Mechanical Data

- Case: JEDEC TO-220AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750, method 2026
- Polarity: As marked
- Mounting position: Any

Maximum Ratings & 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%.)

Parameters		Symbols	GSMUR 3020CT	GSMUR 3040CT	GSMUR 3060CT	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	200	400	600	V
Maximum RMS Voltage		V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage		V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current (see Fig.1)	Per leg	$I_{(AV)}$	15.0			A
	Total device		30.0			
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	220			A
Maximum Instantaneous Forward Voltage at 15.0A Per leg ¹		V_F	1.05	1.3	1.7	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^\circ\text{C}$	I_R	5			μA
	$T_A=125^\circ\text{C}$		50			
Maximum Reverse Recovery Time ²		T_{rr}	35			nS
Typical Thermal Resistance ³		$R_{\theta JC}$	2.5			$^\circ\text{C/W}$
Operating Junction Temperature Range		T_J	-55 to +150			$^\circ\text{C}$
Storage Temperature Range		T_{STG}	-55 to +150			$^\circ\text{C}$

Notes:

1. Pulse test: 300us pulse width, 1% duty cycle
2. Reverse recovery test conditions, $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
3. Thermal resistance from junction to case

Ratings and Characteristics Curves

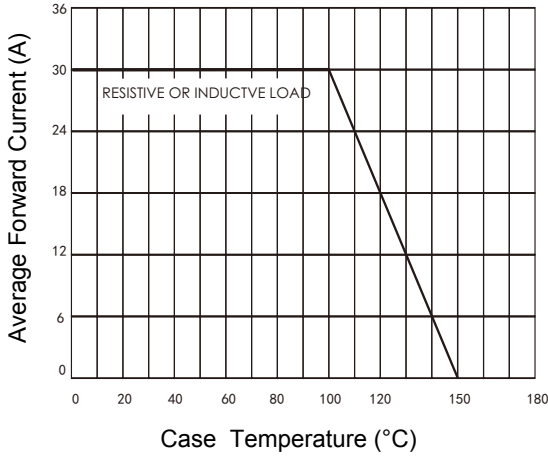


Figure 1. Forward Current Derating Curve

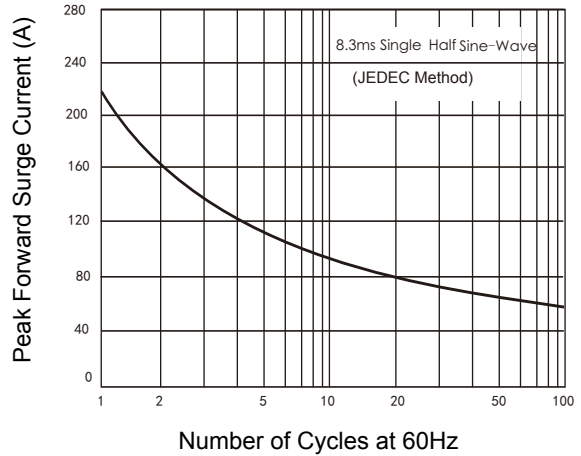


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

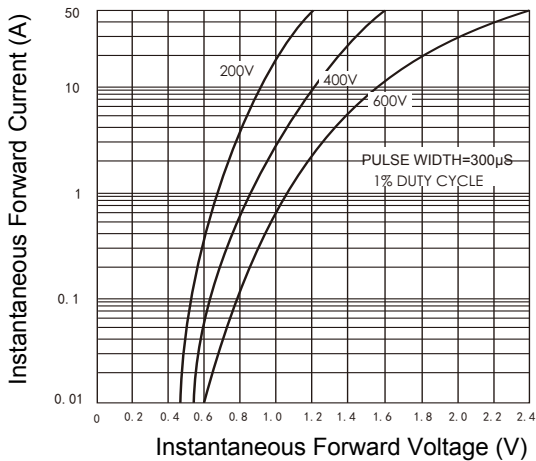


Figure 3. Typical Instantaneous Forward Characteristics

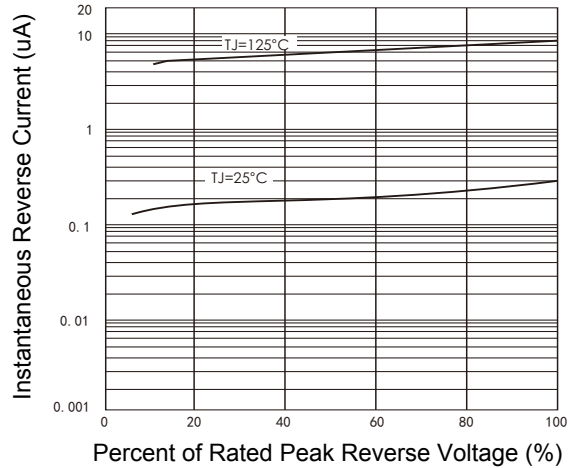


Figure 4. Typical Reverse Characteristics

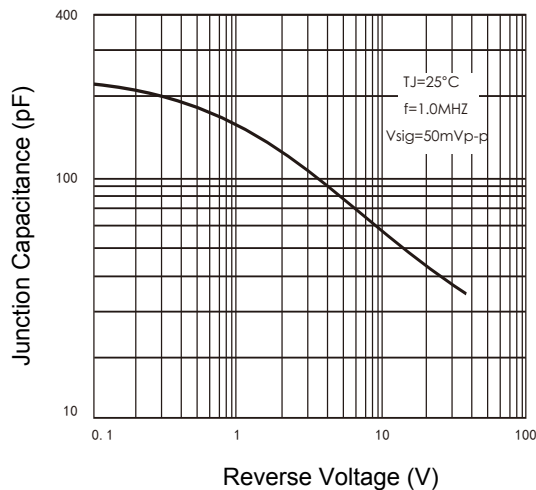


Figure 5. Typical Junction Capacitance

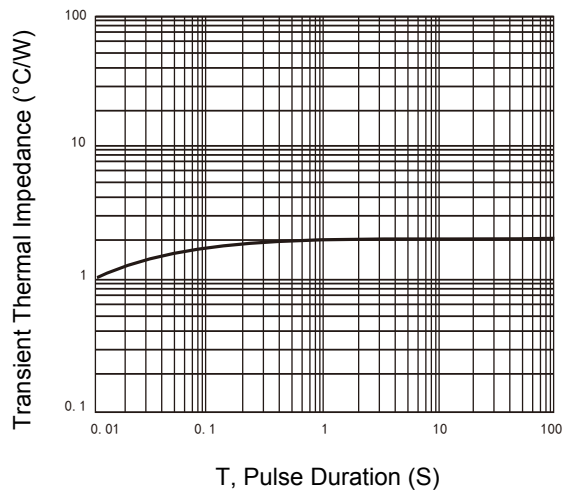
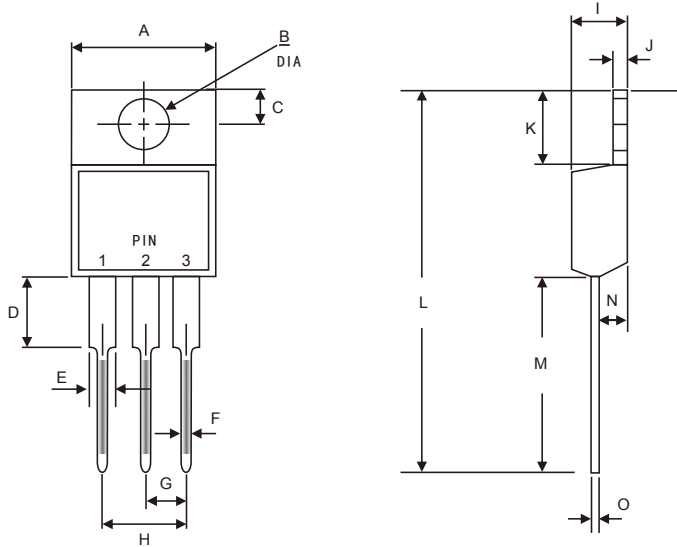


Figure 6. Typical Transient Thermal Impedance

GSMUR3020CT thru GSMUR3060CT

Glass Passivated Super Fast Rectifiers
 Reverse Voltage 200V to 600V Forward Current 30A

Package Outline Dimensions (TO-220AB)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	9.91	10.41	0.390	0.410
B	3.74	4.10	0.147	0.161
C	2.60	2.90	0.102	0.114
D	3.50	4.05	0.138	0.159
E	1.20	1.34	0.047	0.053
F	0.68	0.94	0.027	0.037
G	2.41	2.67	0.095	0.105
H	4.88	5.28	0.192	0.208
I	4.44	4.70	0.175	0.185
J	1.14	1.39	0.045	0.055
K	6.20	7.20	0.244	0.283
L	28.10	29.50	1.106	1.161
M	13.10	14.22	0.516	0.560
N	2.50	2.90	0.098	0.114
O	0.35	0.58	0.014	0.023

Order Information

Device	Package	Marking	Quantity	HSF Status
GSMUR3020CT	TO-220AB	MUR3020CT	50pcs / Tube	RoHS Compliant
GSMUR3040CT	TO-220AB	MUR3040CT	50pcs / Tube	RoHS Compliant
GSMUR3060CT	TO-220AB	MUR3060CT	50pcs / Tube	RoHS Compliant