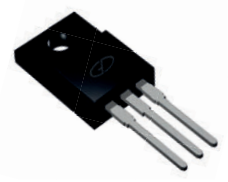
GSMURF1620CT Thru GSMURF1660CT

Glass Passivated Super Fast Rectifiers

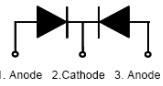
Reverse Voltage 200V to 600V Forward Current 16A

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



ITO-220AB



Schematic Diagram

Mechanical Data

- Case: JEDEC ITO-220AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750, method 2026
- Polarity: As marked
- Mounting position: Any
- Weight: 0.08ounce, 2.24 gram

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	GSMURF 1620CT	GSMURF 1640CT	GSMURF 1660CT	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	$I_{(AV)}$	8.0			A
	Total device		16.0			
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	150			A
Maximum Instantaneous Forward Voltage at 8.0A[1]		V_F	0.975	1.3	1.7	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage[1]	T_A=25°C	I_R	5			μA
	T_A=125°C		50			
Maximum Reverse Recovery Time[2]		T_{rr}	35			nS
Typical Thermal Resistance[3]		$R_{\theta JC}$	4.5			°C/W
Operating Junction Temperature Range		T_J	-55 to +175			°C
Storage Temperature Range		T_{STG}	-55 to +175			°C

Notes:

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

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Ratings and Characteristics Curves

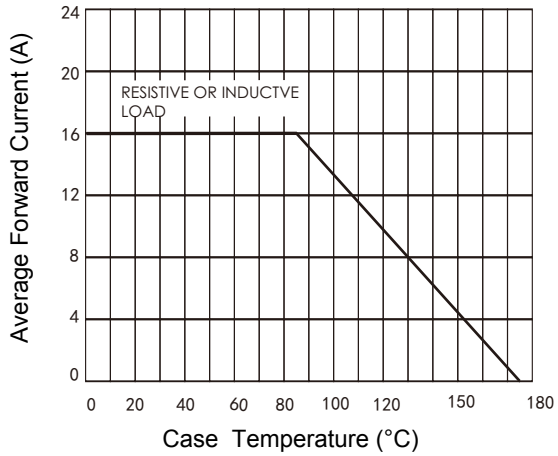

Figure 1. Forward Current Derating Curve

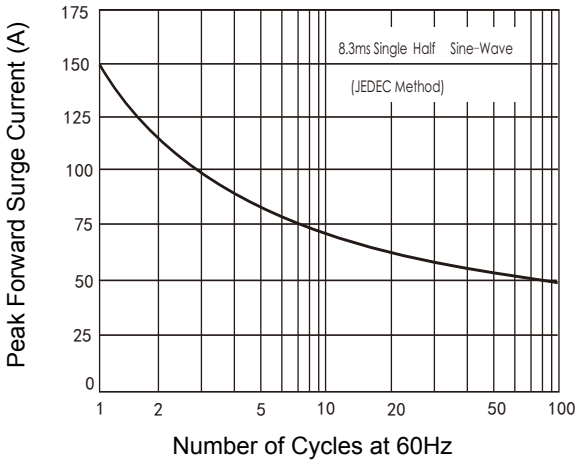

Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

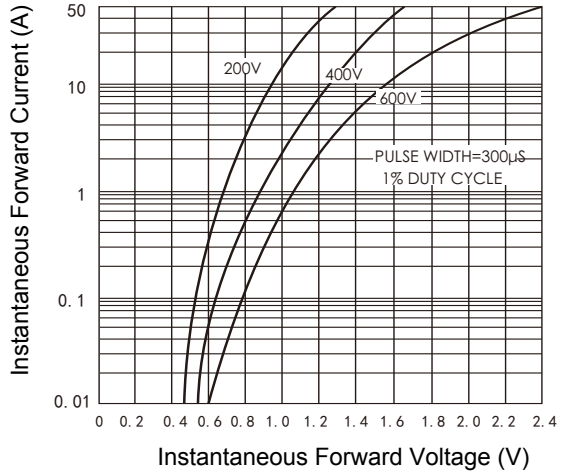

Figure 3. Typical Instantaneous Forward Characteristics

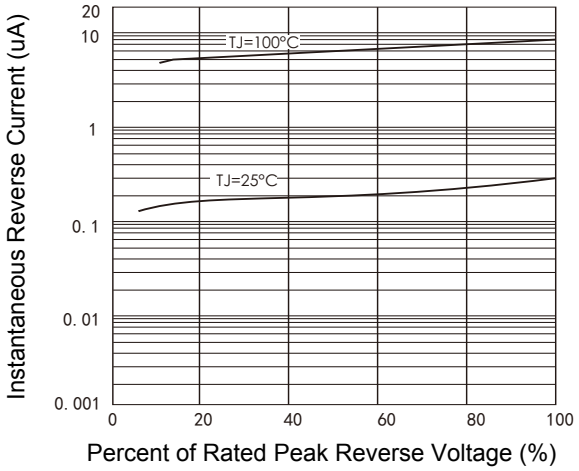

Figure 4. Typical Reverse Characteristics

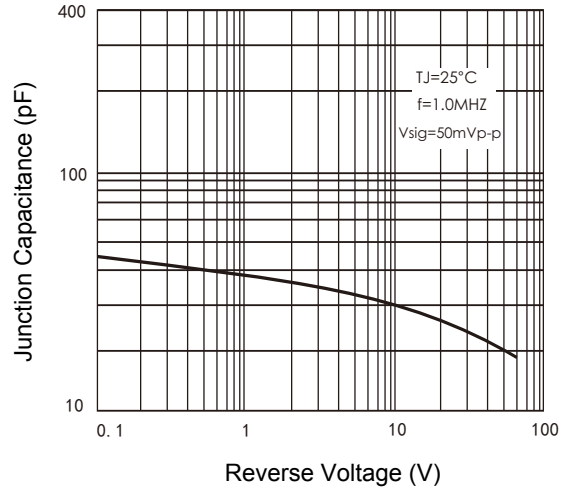

Figure 5. Typical Junction Capacitance

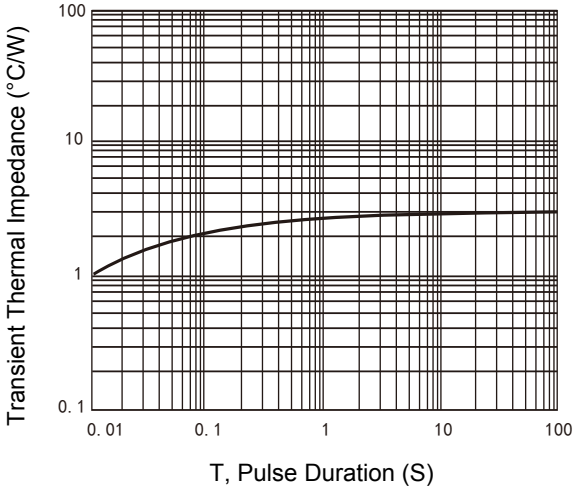

Figure 6. Typical Transient Thermal Impedance

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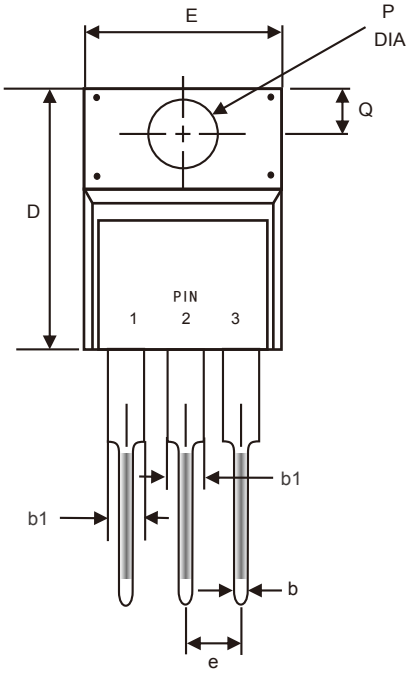
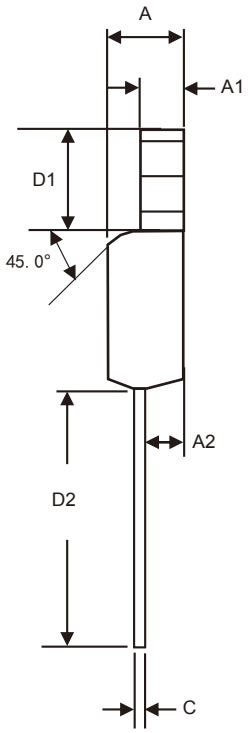
Package Outline Dimensions (ITO-220AB)





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.49	4.89	0.177	0.192
A1	2.28	2.88	0.090	0.113
A2	2.50	2.90	0.098	0.114
b	0.67	0.93	0.026	0.037
b1	1.10	1.43	0.043	0.056
C	0.37	0.63	0.015	0.025
D	15.40	16.40	0.606	0.646
D1	6.45	6.85	0.254	0.270
D2	12.50	13.50	0.492	0.531
e	2.44	2.64	0.096	0.104
E	9.91	10.41	0.390	0.410
Q	3.05	3.45	0.120	0.136
P	3.15	3.45	0.124	0.132