

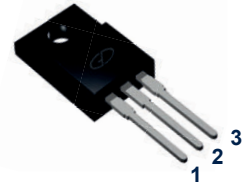
GSRF3020CT thru GSRF30200CT

Schottky Barrier Rectifiers

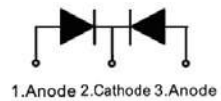
Reverse Voltage 20V to 200V Forward Current 30A

Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for over voltage protection
- Low power loss, high efficiency
- High current capability, 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 2015/863/EU



ITO-220AB



1..Anode 2..Cathode 3..Anode

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
- Mounting torque: 10 in-lbs maximum

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	GSRF	GSRF	GSRF	GSRF	GSRF	GSRF	GSRF	GSRF	Units
		3020CT	3030CT	3040CT	3045CT	3060CT	30100CT	30150CT	30200CT	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	45	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	32	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	45	60	100	150	200	V
Maximum Average Forward Rectified Current (see Fig.1)	Per leg	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}	250								A
Maximum Instantaneous Forward Voltage at 15.0A Per leg	V_F	0.60			0.75	0.85	0.90	0.95	V	
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^\circ\text{C}$	100				20				μA
	$T_A=100^\circ\text{C}$	5				-				mA
	$T_A=125^\circ\text{C}$	-				3				
Typical Thermal Resistance ²	$R_{\theta JC}$	4.5								$^\circ\text{C/W}$
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. Thermal resistance from junction to case

Ratings and Characteristics Curves

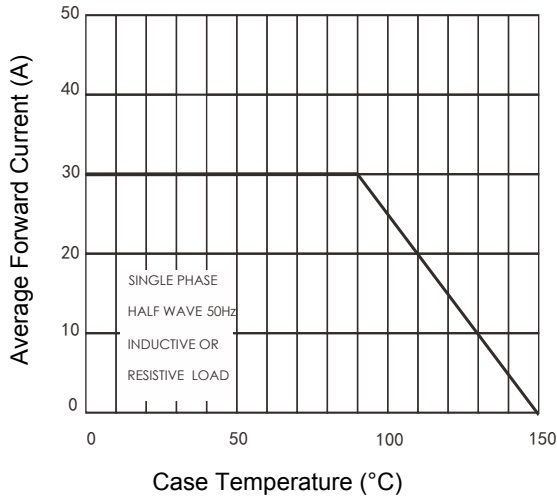


Figure 1. Forward Current Derating Curve

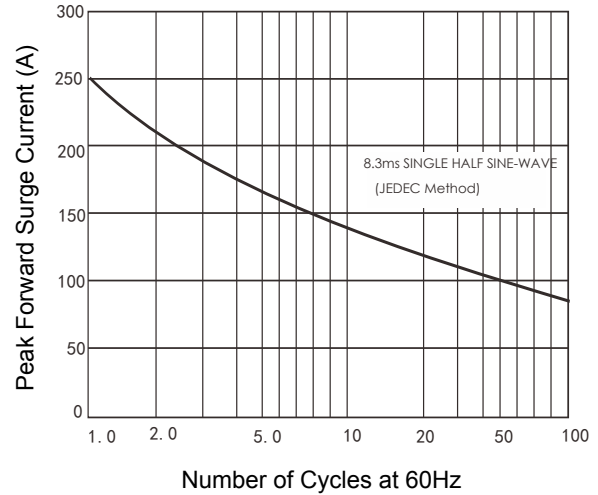


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

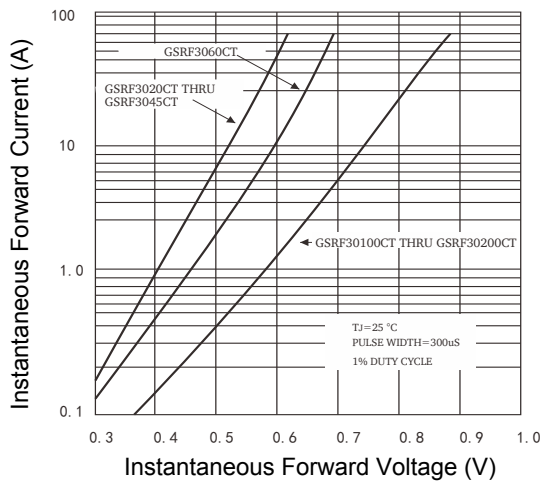


Figure 3. Typical Instantaneous Forward Characteristics

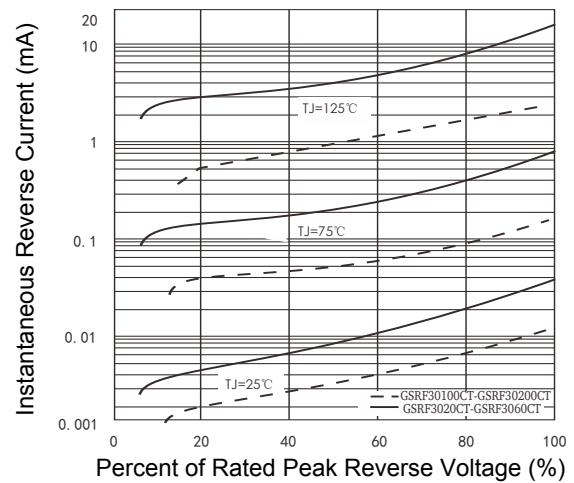


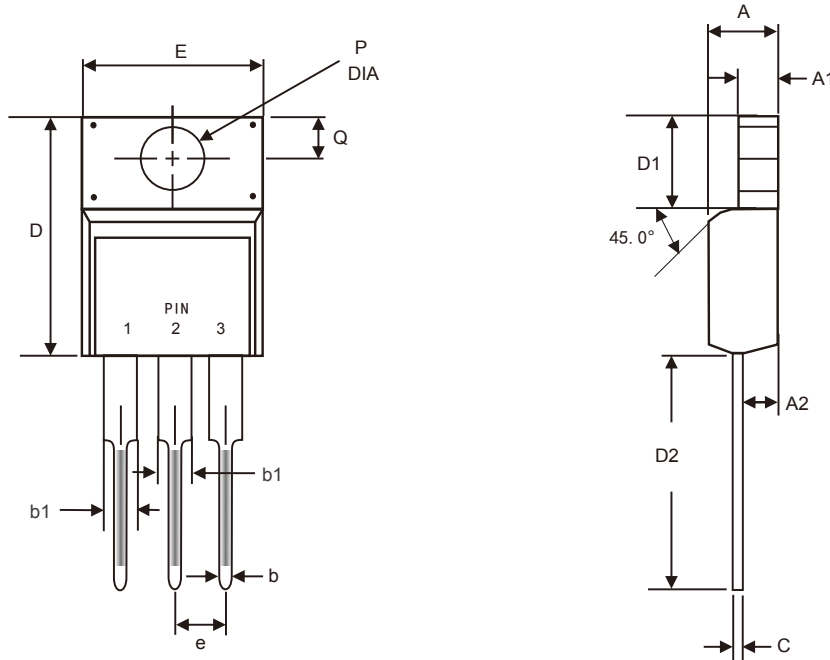
Figure 4. Typical Reverse Characteristics

GSRF3020CT thru GSRF30200CT

Schottky Barrier Rectifiers

Reverse Voltage 20V to 200V Forward Current 30A

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

Order Information

Device	Package	Marking	Carrier	Quantity
GSRF3020CT	ITO-220AB	SRF3020CT	Tube	50 Units / Tube
GSRF3030CT	ITO-220AB	SRF3030CT	Tube	50 Units / Tube
GSRF3040CT	ITO-220AB	SRF3040CT	Tube	50 Units / Tube
GSRF3045CT	ITO-220AB	SRF3045CT	Tube	50 Units / Tube
GSRF3060CT	ITO-220AB	SRF3060CT	Tube	50 Units / Tube
GSRF30100CT	ITO-220AB	SRF30100CT	Tube	50 Units / Tube
GSRF30150CT	ITO-220AB	SRF30150CT	Tube	50 Units / Tube
GSRF30200CT	ITO-220AB	SRF30200CT	Tube	50 Units / Tube