

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip
- Low V_F , low power loss
- Flexible solution for reliable AC power rectification
- High surge capability
- High temperature soldering guaranteed: 260°C/10s at terminals
- Component in accordance to RoHS 2015/863/EU



TO-247AC

Pin1  Pin3
 Case

Schematic Diagram

Mechanical Data

- Case: TO-247AC 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)

Parameters	Symbols	Value				Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600				V
Maximum RMS Voltage	V_{RMS}	1130				V
Maximum DC Blocking Voltage	V_{DC}	1600				V
Maximum Average Forward Rectified Current (D=0.5 Rectangular Wave)	$I_{F(AV)}$	90.0				A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method)	I_{FSM}	1000				A
Forward Voltage at 90A per leg ¹	V_F	Typ.	1.13	Max.	1.25	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	I_R	Typ.	-	Max.	5	uA
		Typ.	-	Max.	250	uA
Typical Thermal Resistance ²	$R_{\theta JC}$	0.30				°C/W
Operating Junction Temperature Range	T_J	-55 to +150				°C
Storage Temperature Range	T_{STG}	-55 to +150				°C

Notes:

1. Pulse test: 300us pulse width, 1% duty cycle
2. Thermal resistance from junction to case, total device

Ratings and Characteristics Curves

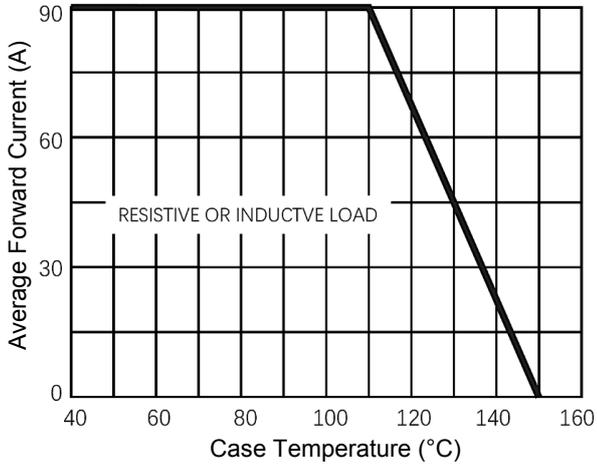


Figure 1. Forward Current Derating Curve

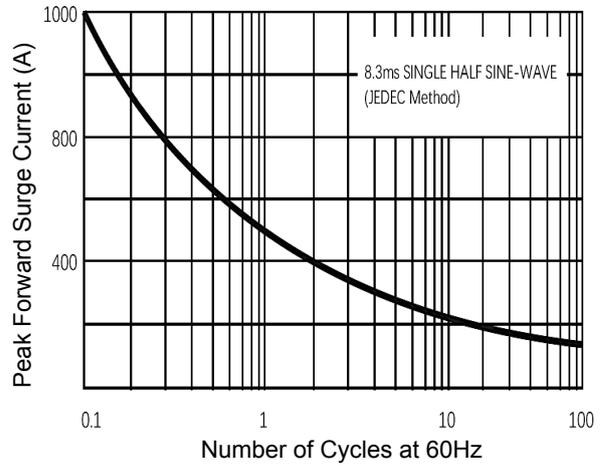


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

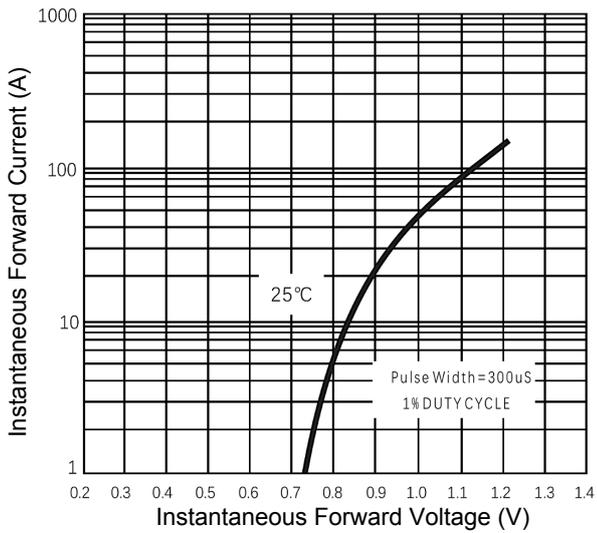


Figure 3. Typical Instantaneous Forward Characteristics

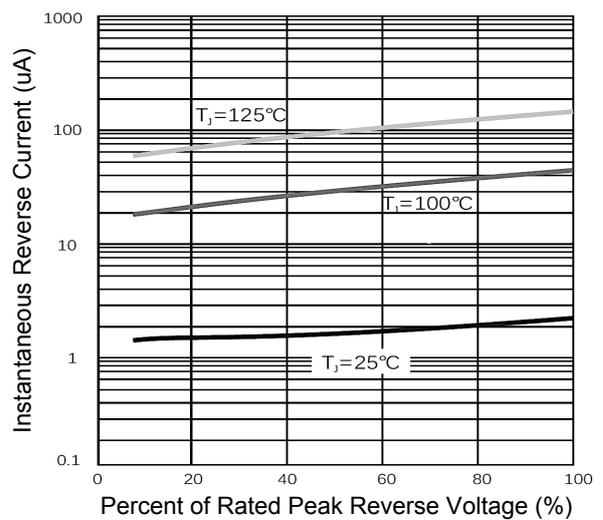
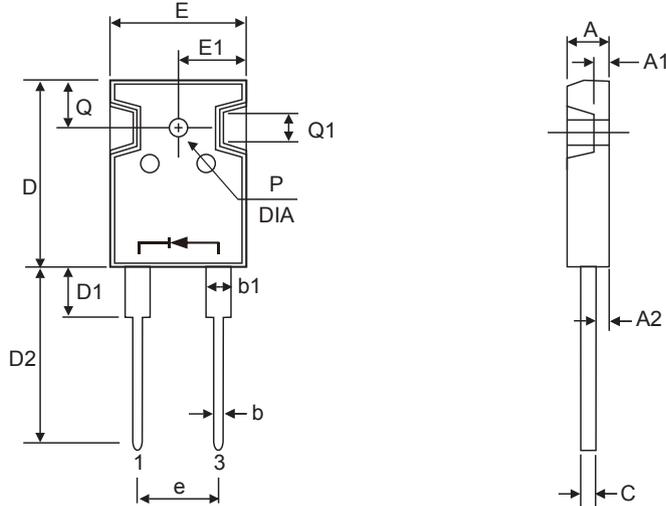


Figure 4. Typical Reverse Characteristics

Package Outline Dimensions (TO-247AC)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.80	5.20	0.189	0.205
A1	1.88	2.10	0.074	0.083
A2	2.24	2.58	0.088	0.102
b	1.10	1.40	0.043	0.055
b1	1.90	2.20	0.075	0.087
C	0.51	0.76	0.020	0.030
D	20.50	21.30	0.807	0.839
D1	3.90	4.40	0.154	0.173
D2	19.60	20.20	0.772	0.795
E	15.40	16.40	0.606	0.646
E1	7.40	8.20	0.291	0.323
e	10.40	11.40	0.409	0.449
Q	5.40	6.20	0.213	0.244
Q1	4.60 REF		0.181 REF	
P	3.00	3.60	0.118	0.142

Order Information

Device	Package	Marking	Carrier	Quantity
GSTD90160P	TO-247AC	STD90160P	Tube	30 Pcs / Tube

For more information, please contact us at: inquiry@goodarksemi.com