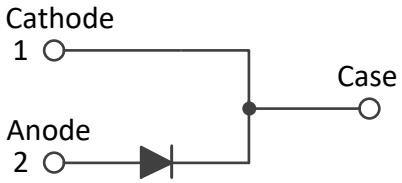
60A,1000V Standard Rectifier

Features

- Glass passivated pellet chip junction
- Low forward voltage drop
- High Surge Current Capability
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21

TO-247AC



Applications

- Power Supply
- Charging Pile
- Inverter

Mechanical Data

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 30 units per plastic tube

Maximum Ratings & Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	GR60100SP	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Working peak reverse voltage	V_{RWM}	1000	V
Maximum DC blocking voltage	V_{DC}	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	60	A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load	I_{FSM}	600	A
Voltage rate of change (rated V_R)	dv/dt	10000	V/uS
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Electrical Specifications (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward drop voltage Note1	V_F	I_F=60A, T_J =25℃	1.04	1.30	V
		I_F=60A, T_J =125℃	-	1.1	
Reverse leakage current @rated V_R Note2	I_R	T_J =25℃	-	10	uA
		T_J =125℃	-	500	

Thermal-Mechanical Specifications (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	0.8	°C /W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	62.5	°C /W

Note：

1. Pulse test with PW=0.3ms, duty cycle=2%
2. Pulse test with PW=30ms

Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)

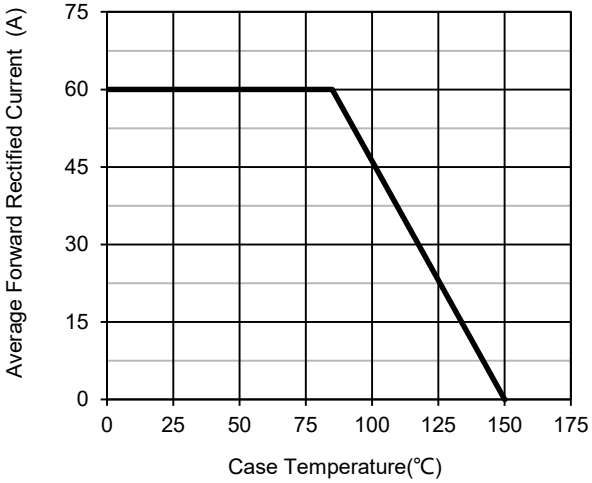


Fig.1 – Forward Current Derating Curve

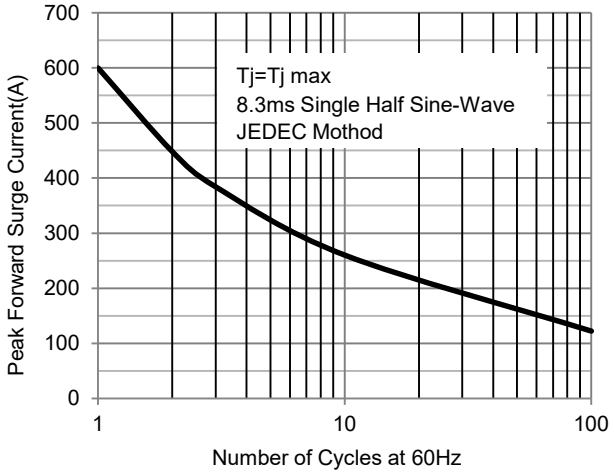


Fig.2 – Maximum Non-Repetitive Surge Current

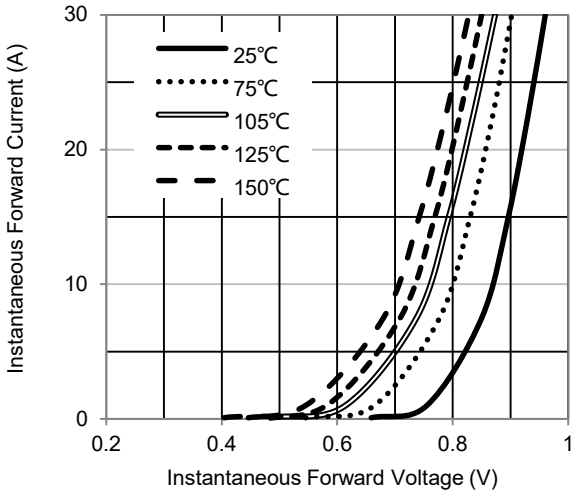


Fig.3 – Typical Forward Voltage Characteristics

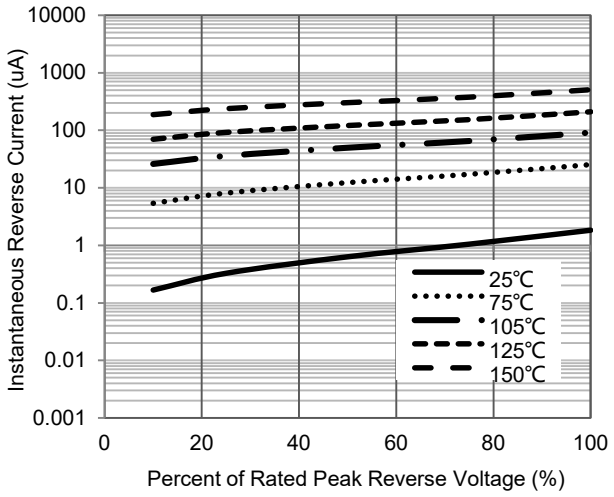
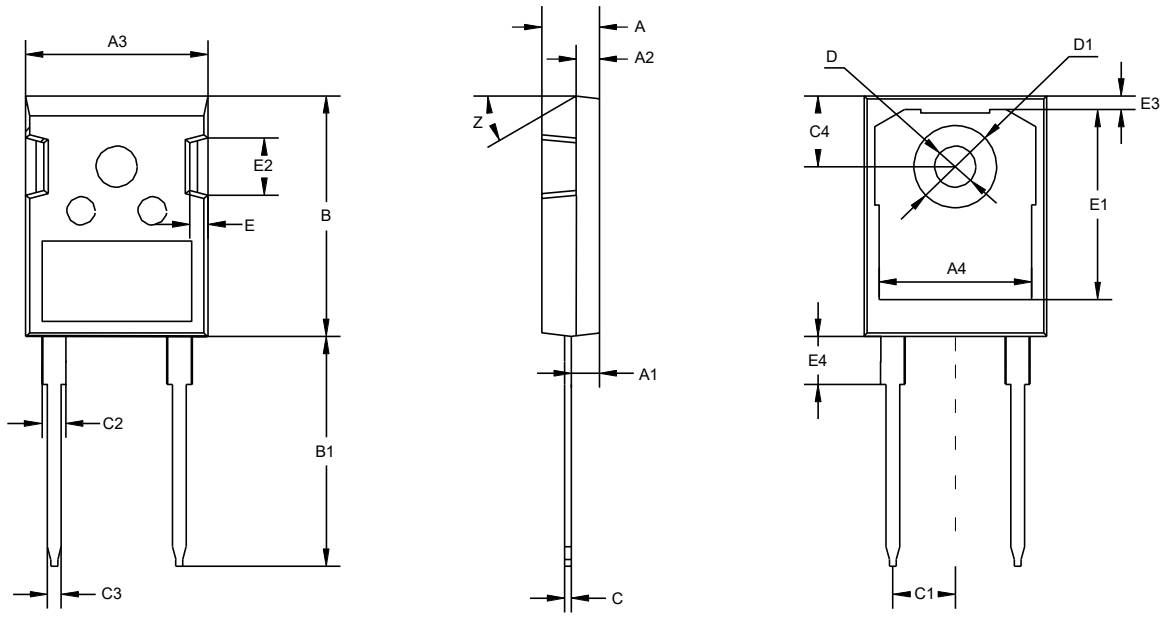


Fig.4 – Typical Reverse Current Characteristics

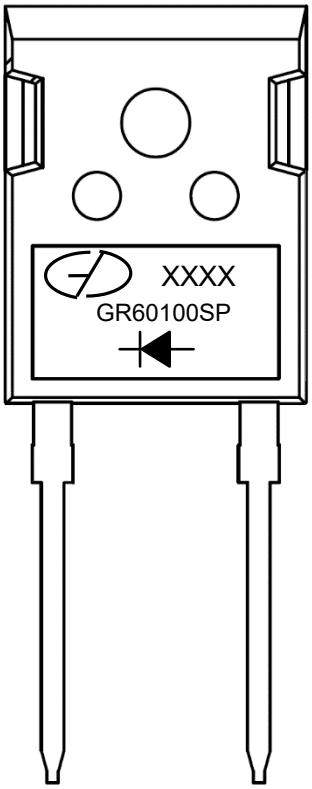
Package Outline Dimensions (Unit: millimeters)

TO-247AC



TO-247AC							
	Min.	Nom.	Max.		Min.	Nom.	Max.
A	4.7	5	5.2	C3	1.1	1.2	1.3
A1	2.3		2.5	C4	6.04	6.15	6.30
A2	1.9	2	2.1	D	3.5	3.6	3.7
A3	15.48	15.88	16.28	D1	7	7.19	7.4
A4	13.06	13.26	13.56	E	1.5	1.6	1.7
B	20.8	20.95	21.1	E1		16.55	
B1	19.8	20	20.32	E2	4.9	5.0	5.1
C	0.5	0.6	0.7	E3	0.95	1.17	1.35
C1	5.34	5.44	5.54	E4		4.17	4.5
C2		2		Z		30°	

Marking Outline



1. Logo Mark:
2. Date code: XXXX
3. Part Name: GR60100SP
4. Polarity :

Revision History

Document Version	Date of release	Description of changes
Rev.A	2022.12.18	**Preliminary Datasheet**

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