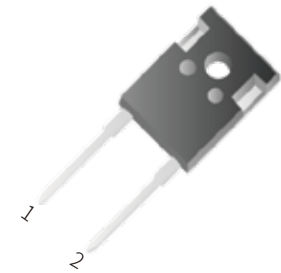


FEATURES

- Low forward voltage
- High forward surge current capability

APPLICATION

- For use in ultrafast switching rectification of power suppliers, inverters, converters, and freewheeling diodes for consumer and telecommunication.



TO-247AC



APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	ER9060P	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current At $T_c=120^{\circ}\text{C}$	$I_{(AV)}$	90.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load	I_{FSM}	700	A
Typical junction capacitance (Note1)	C_J	330	pF
Typical Thermal Resistance	$R_{\theta JA}$	35	$^{\circ}\text{C}/\text{W}$
Typical Thermal Resistance	$R_{\theta JC}$	0.6	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 ~ +175	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +175	$^{\circ}\text{C}$

Note:
 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Minimum reverse breakdown voltage	V_R	$I_R=0.05\text{mA}$	600	700		V
Maximum instantaneous forward voltage	V_F	$I_F=90\text{A}$		1.42	1.7	V
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A=25^{\circ}\text{C}$		0.1	10	μA
		$T_A=25^{\circ}\text{C}$		90	500	μA
Maximum reverse recovery time	T_{rr}	$I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$		70	100	ns

CHARACTERISTIC CURVES

Fig.1 -Derating Curve Output Rectified Current

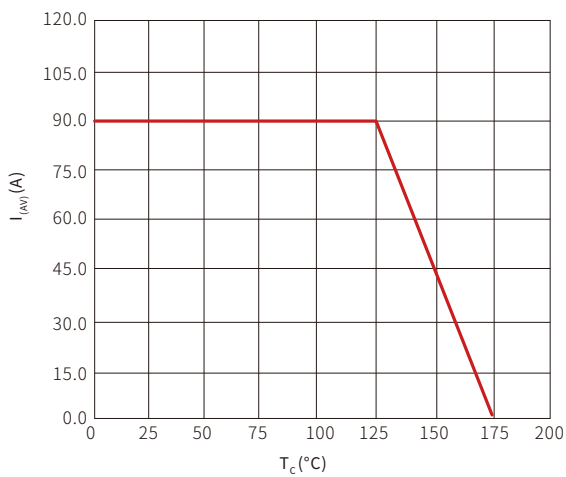


Fig.2 -Maximum Non-repetitive Peak Forward Surge Current Perleg

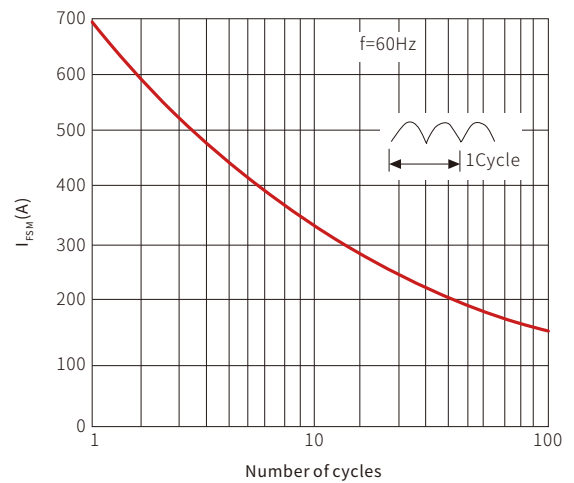
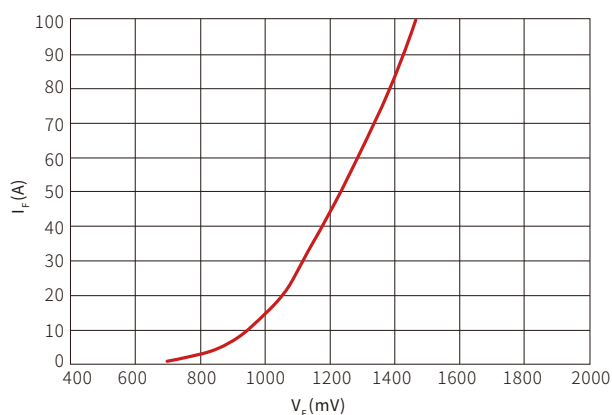
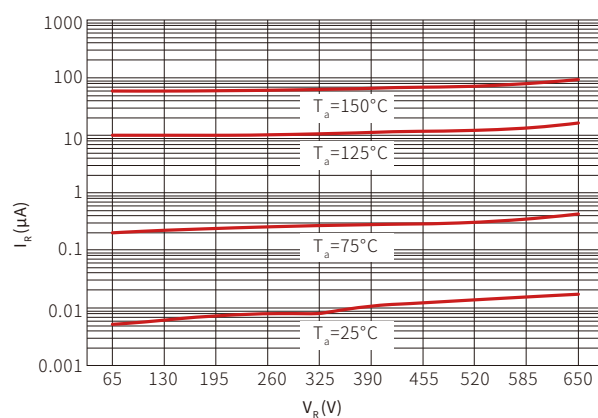
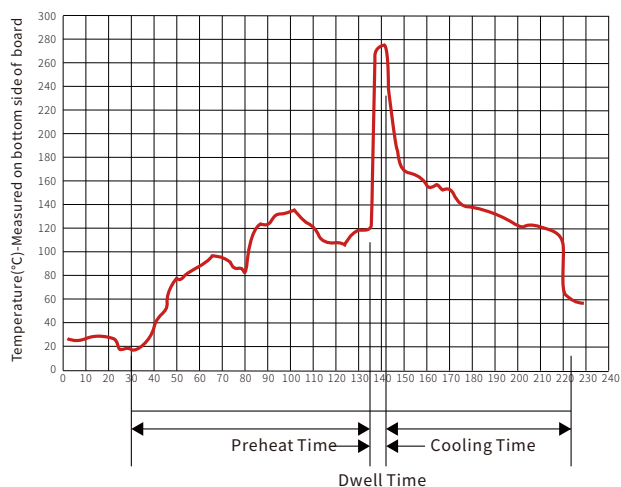


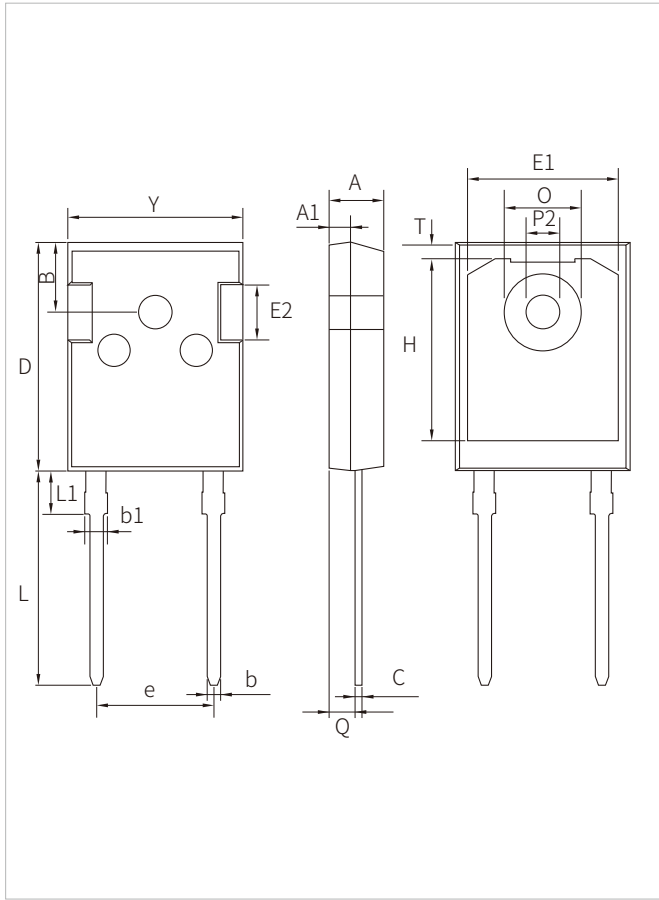
Fig.3 -Typical Forward Voltage Characteristics

Fig.4 -Typical Reverse Leakage Characteristics


WAVE SOLDERING



Wave Parameter		Lead-free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

TO-247AC PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.70	5.30	0.185	0.209
A1	1.70	2.30	0.067	0.091
C	0.45	0.75	0.018	0.030
Q	2.20	2.60	0.087	0.102
O	7.10	7.40	0.280	0.291
P2	3.45	3.75	0.136	0.148
L	19.00	21.00	0.748	0.827
L1	4.20	4.50	0.165	0.177
b	1.00	1.40	0.039	0.055
b1	1.80	2.25	0.071	0.089
e	10.65	10.95	0.419	0.431
D	20.65	21.35	0.813	0.841
Y	15.60	16.00	0.614	0.630
E2	4.60	5.40	0.181	0.213
T	1.35REF		0.053REF	
H	16.5REF		0.650REF	
E1	14.00REF		0.551REF	
B	6.30REF		0.248REF	

ORDERING INFORMATION

Part Number	Component Package	Marking	QTY/Tube	QTY/Box	QTY/Carton
ER9060P	TO-247AC	ER9060P	30PCS	450PCS	2250PCS

Headquarters

No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code

Website



Wechat

To find your local partner within Semiware' s global website: www.semiware.com

© 2022 Semiware Semiconductor Inc.

The content of this document has been carefully checked and understood. However, neither Semiware nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Semiware does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Chinese law and resulting disputes shall be settled by the courts at the place of business of Semiware. Latest publications and a complete disclaimer can be downloaded from the Semiware website. All trademarks recognized.