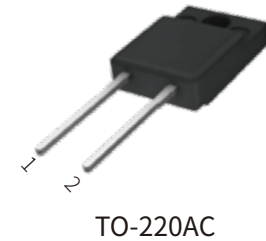


FEATURES

- Construction Utilizes Void-free Molded Plastic Technique
- Low Reverse Leakage
- High Forward Surge Current Capability



MECHANICAL DATA

- Case : Molded Plastic Body
- Polarity : Polarity Symbol Marking on Body
- Mounting Position : Any



Schematic Symbol

APPROVALS

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

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

Parameter	Symbol	ER30120	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
Maximum RMS Voltage	V_{RMS}	840	V
Maximum DC Blocking Voltage	V_{DC}	1200	V
Maximum Average Forward Rectified Current At $T_c=120^{\circ}\text{C}$	$I_{(AV)}$	30.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load	I_{FSM}	350.0	A
Maximum Instantaneous Forward Voltage at 30.0A	V_F	3.5	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	50	μA
	$T_A=125^{\circ}\text{C}$	2000	μA
Maximum reverse recovery time	T_{rr}	60	ns
Typical Thermal Resistance	$R_{\theta JC}$	2.0	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +175	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +175	$^{\circ}\text{C}$

Note:1.Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

CHARACTERISTIC CURVES

Fig.1 -Derating Curve Output Rectified Current

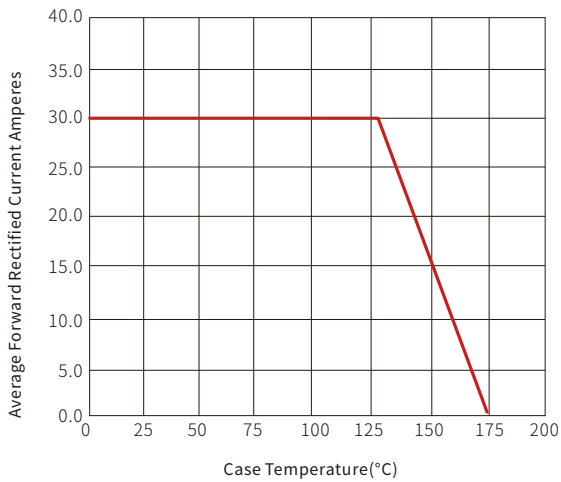


Fig.2 -Maximum Non-repetitive Peak Forward Surge Current Perleg

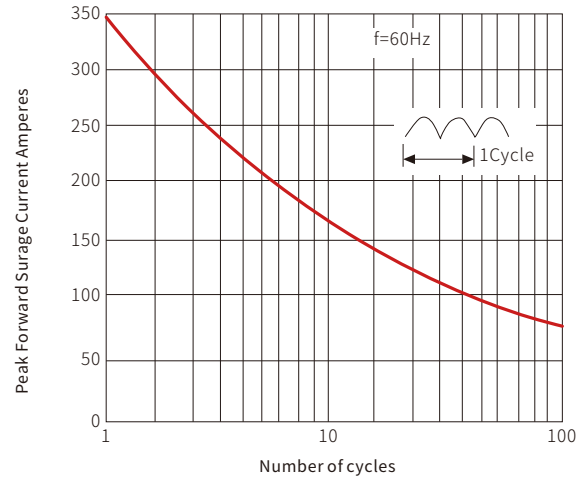


Fig.3 -Typical Forward Voltage Characteristics

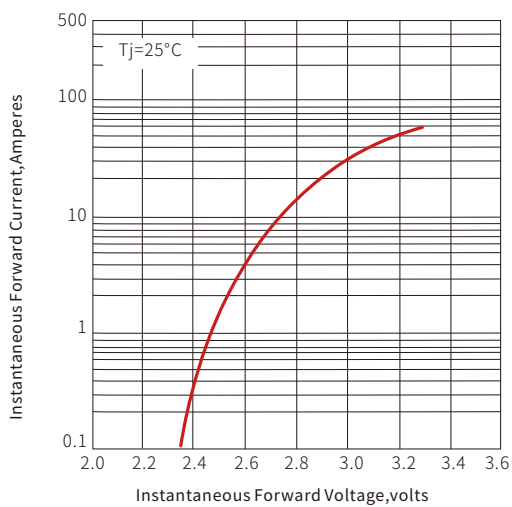
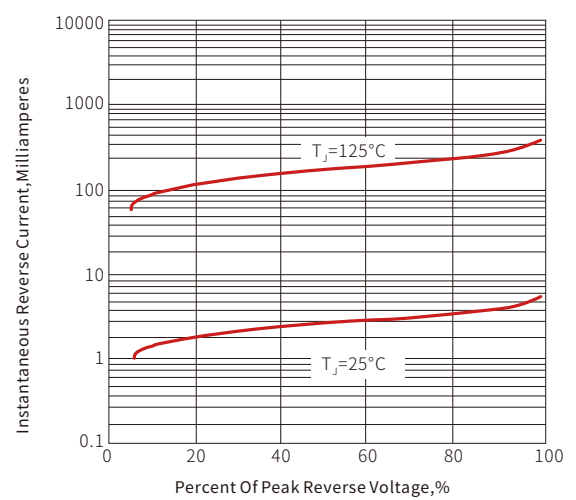
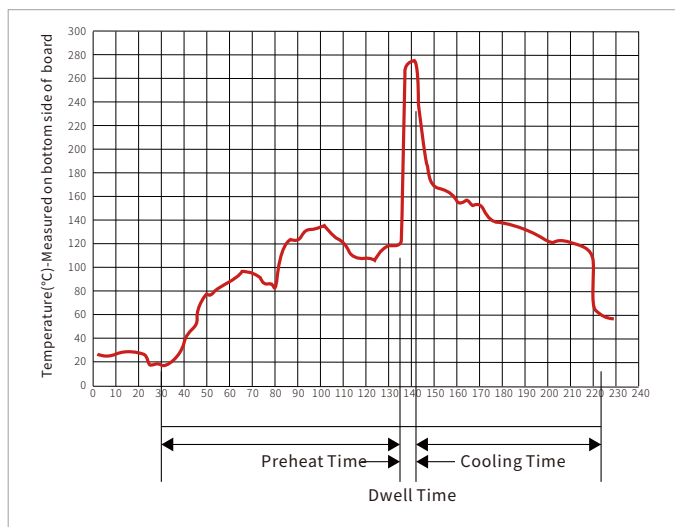


Fig.4 -Typical Reverse Leakage Characteristics

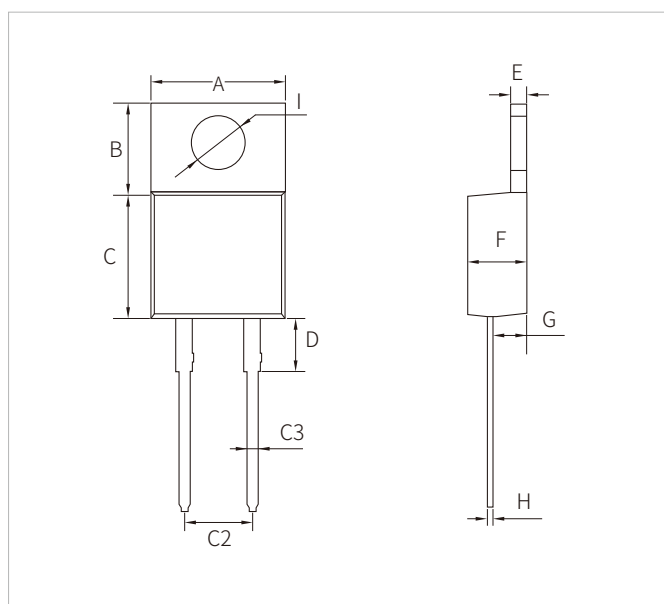


WAVE SOLDERING



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-220AC PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	-	10.7	-	0.421
B	14.5	15.5	0.571	0.610
C	13.0	14.6	0.510	0.576
C2	4.90	5.30	0.192	0.208
C3	0.69	0.94	0.027	0.037
D	3.16	4.46	0.124	0.176
E	1.14	1.40	0.045	0.055
F	4.00	5.10	0.155	0.200
G	2.14	3.19	0.084	0.126
H	0.28	0.64	0.011	0.025
I	3.34	4.31	0.131	0.170

ORDERING INFORMATION

Part Number	Component Package	Marking	QTY/Tube	QTY/Box	QTY/Carton
ER30120	TO-220AC	 ER30120 XXXX	50PCS	1000PCS	5000PCS

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By QR Code

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