

Fast Recovery Epi Diodes

Reverse Voltage - 1200 V

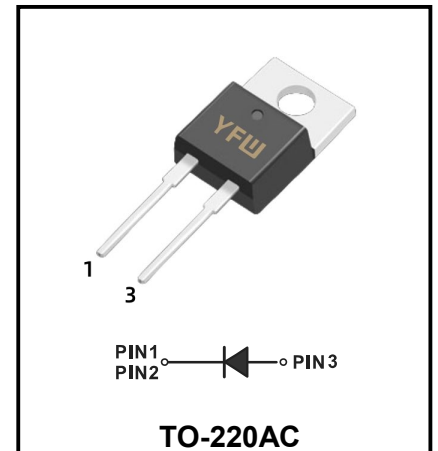
Forward Current - 30 A

Features

- ◆High frequency operation
- ◆High surge forward current capability
- ◆High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- ◆Guard ring for enhanced ruggedness and long term reliability

Mechanical Data

- ◆Case: TO-220AC
- ◆RoHS compliant
- ◆Case Material: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".



Maximum Ratings And Electrical Characteristics
Ratings At 25°C Ambient Temperature Unless Otherwise Specified

Parameter	Symbols	Value	Units
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	$I_{F(AV)}$	30	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300	A
Instantaneous forward voltage at 30A	V_F	3.3	V
Maximum instantaneous reverse current at rated DC blocking voltage	I_R	10 500	uA
Maximum Reverse Recovery Time (Note1)	t_{rr}	60	nS
Maximum Thermal Resistance Junction To Case	$R_{\theta JC}$	2.1	°C/W
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 ~ +150	°C

Note1: $I_F=0.5A, I_R=1A, I_{rr}=0.25A$

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

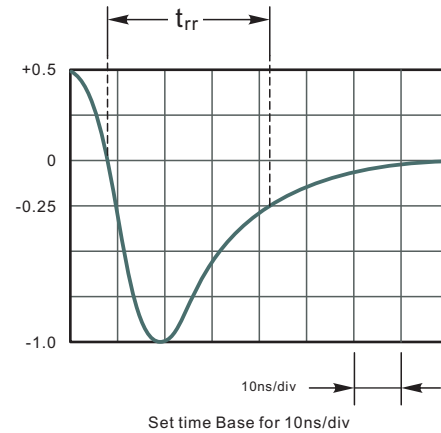
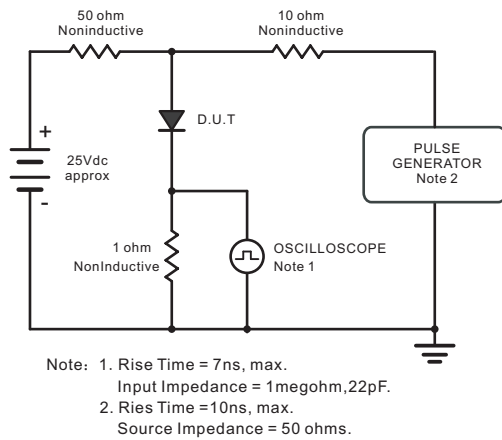


Fig.2 Typical Forward Current Derating Curve

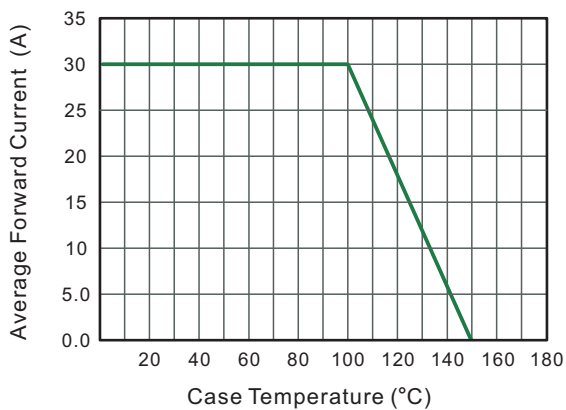


Fig.3 Typical Reverse Characteristics

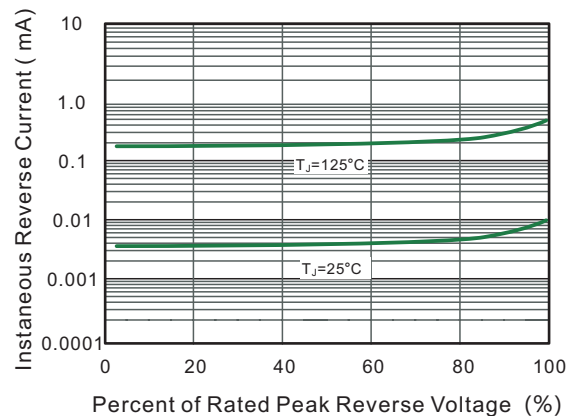


Fig.4 Typical Forward Characteristic

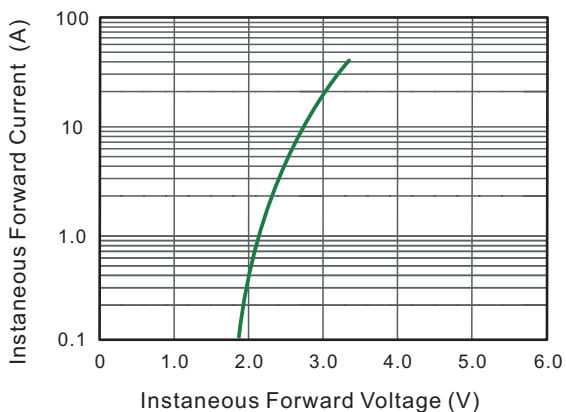
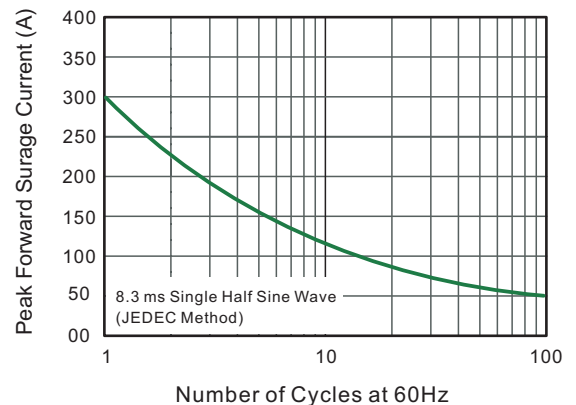
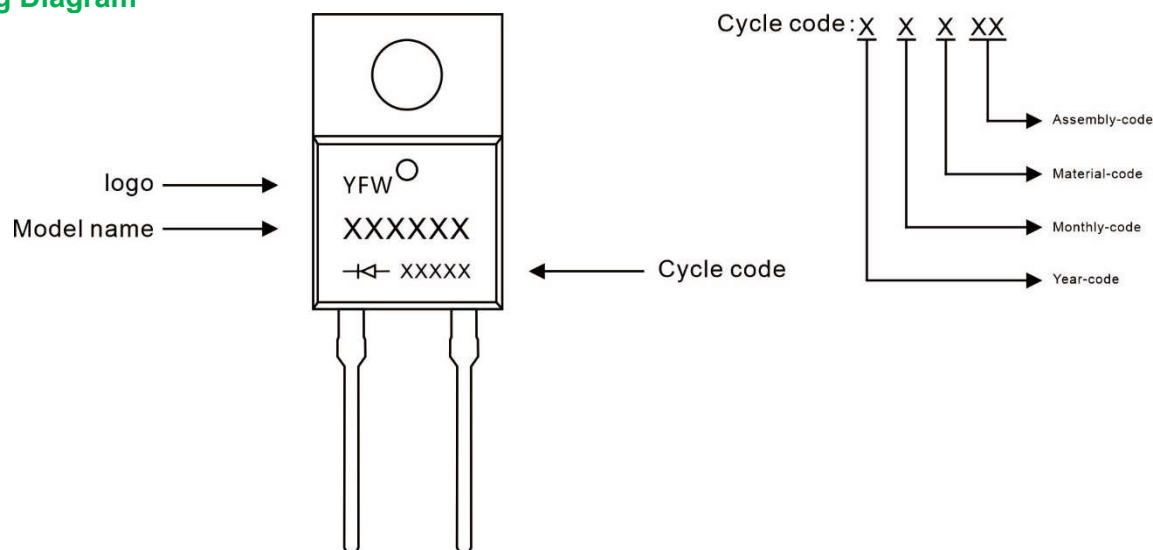


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR30120AC	TO-220AC	0.067oz(1.9g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220AC

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.34	4.67	0.171	0.184
A1	2.52	2.82	0.099	0.111
b	0.71	0.91	0.028	0.036
b1	1.17	1.37	0.046	0.054
c	0.30	0.50	0.012	0.020
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	8.90	0.335	0.350
E1	12.00	12.50	0.472	0.492
e	4.88	5.28	0.192	0.208
F	2.60	2.80	0.102	0.110
L	13.20	13.80	0.520	0.543
L1	3.80	4.20	0.150	0.165
Φ	3.60	3.96	0.142	0.156

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