

Fast Recovery Epi Diodes

Reverse Voltage -200 TO 600 V

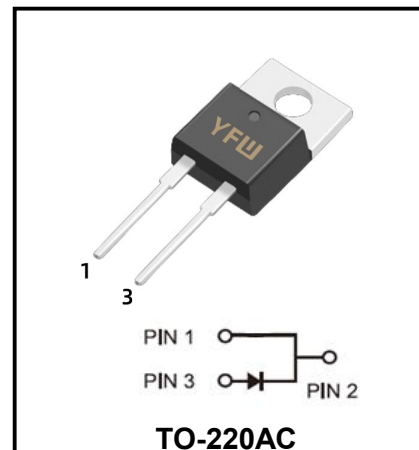
Forward Current - 20 A

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
- ◆Solder dip 275 °C max. 7s, per JESD 22-B106

Mechanical Data

- ◆Case: TO-220AC
- ◆Terminals: Lead solderable per MIL-STD-202, Method 208
- ◆Lead free finish, RoHS compliant
- ◆Case Material: “Green” molding compound, UL flammability classification 94V-0, “Halogen-free”.



Maximum Ratings (Per Leg) At Ta=25°C Unless Otherwise Specified

Parameter	Symbols	MUR2020AC	MUR2040AC	MUR2060AC	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current @Tc=100°C	$I_{F(AV)}$	20			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	250			A
Instantaneous forward voltage at 30A	V_F	1.0	1.3	1.6	V
Maximum instantaneous reverse current at rated DC blocking voltage	I_R	10 500			uA
Maximum Reverse Recovery Time NOTE 1	t_{rr}	35			nS
Maximum Thermal Resistance Junction To Case	$R_{\theta JC}$	4			°C/W
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 ~ +150			°C

Note1: Reverse recovery test conditions IF=0.5A, IR=1.0A, Irr=0.25A

Fig.1 Typical Forward Current Derating Curve

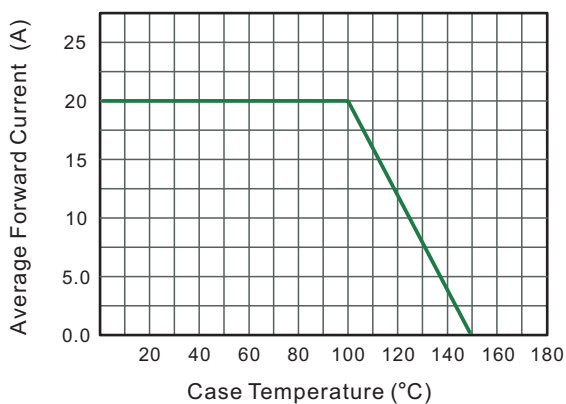


Fig.2 Typical Reverse Characteristics

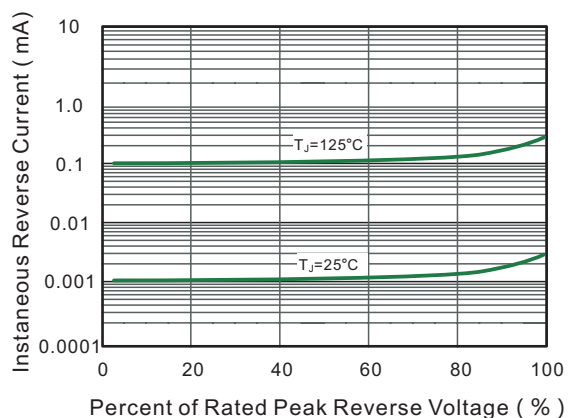


Fig.3 Typical Forward Characteristic

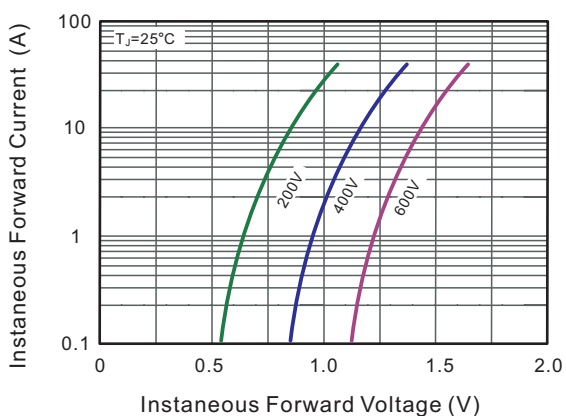
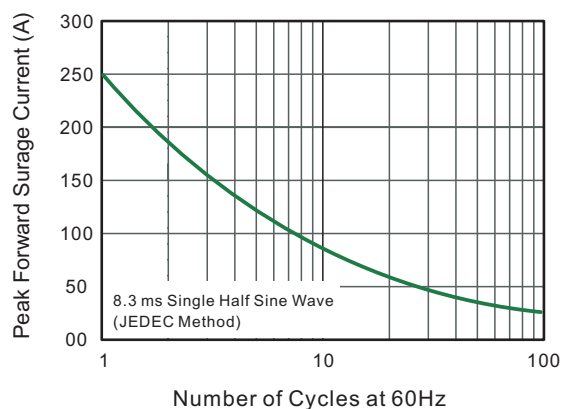
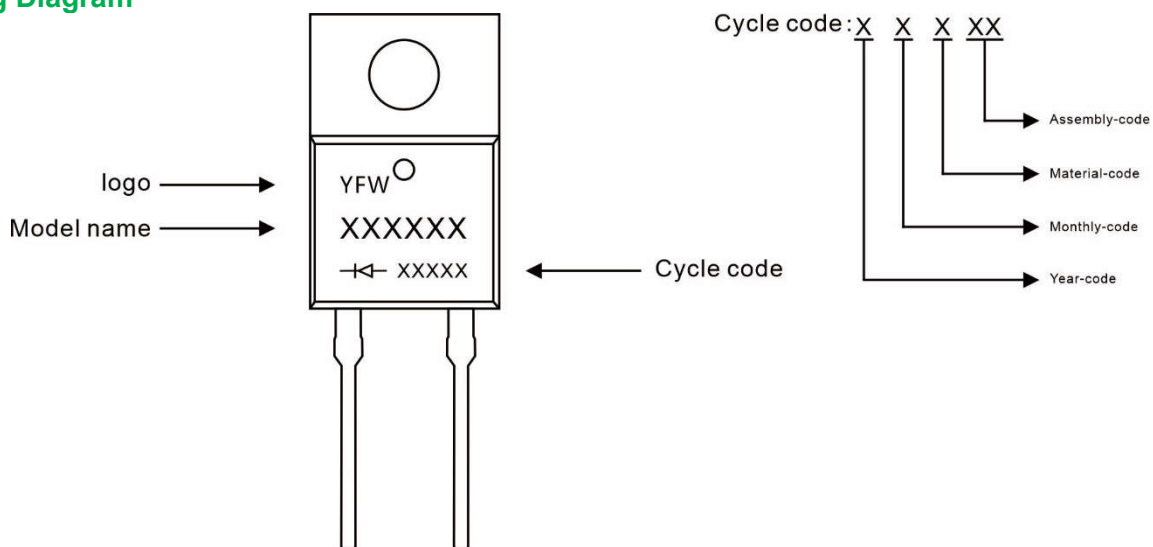


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MURXXXXAC	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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