

Ultra-Fast Recovery EPI Rectifier Diodes

Reverse Voltage -1200 V

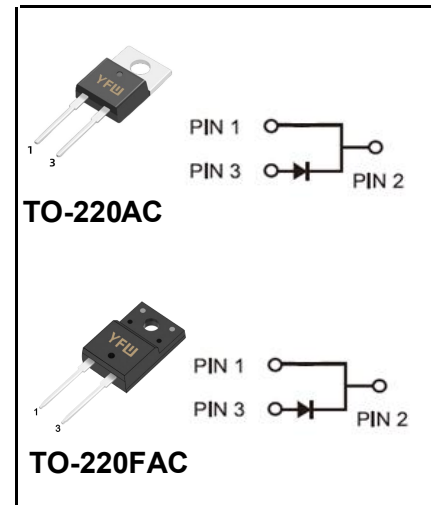
Forward Current - 15 A

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 TO-220FAC
- ◆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”.



Primary Characteristic

I_o	15A
V_{RRM}	1200V
I_{FSM}	150A
V_F	3.3V
T_J Max	150°C

Maximum Ratings (Per Leg) at Ta=25°C 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_o	15	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150	A
Operating Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C
Typical Thermal Resistance	R_{θJC}	4	°C/W

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbols	Value		Units
Forward Voltage Drop	V_F	Typ	Max	V
Instantaneous forward voltage at 15 A		3.3	-	
Maximum Reverse Current at V _R =1200V	I_R	TA=25°C	10	uA
		TA=125°C	500	uA
Maximum Reverse Recovery Time at I _F =0.5A, I _R =1A, I _{RR} =0.25A	T_{RR}	-	60	nS

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Typical Forward Current Derating Curve

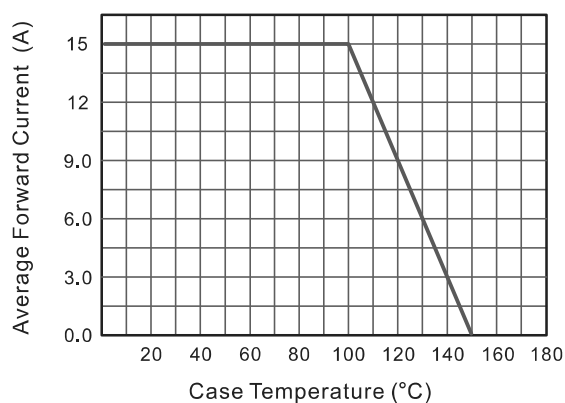


Fig.2 Typical Reverse Characteristics

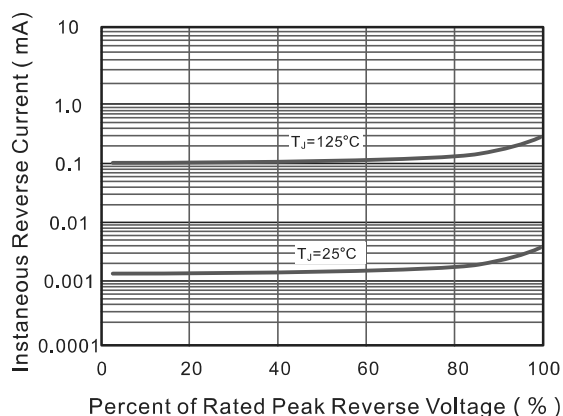


Fig.3 Typical Forward Characteristic

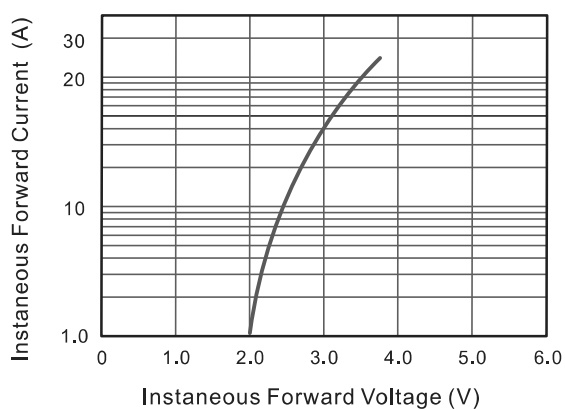
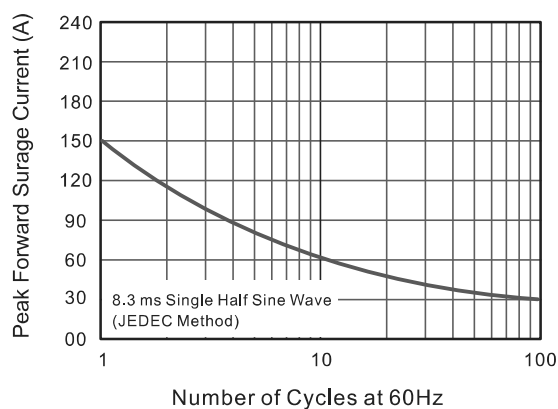
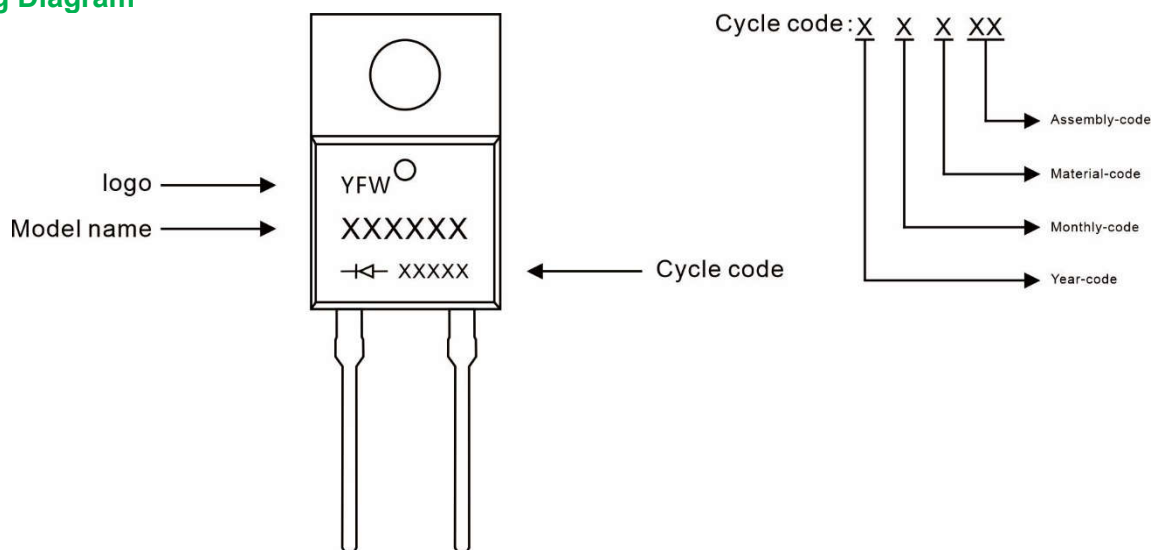


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

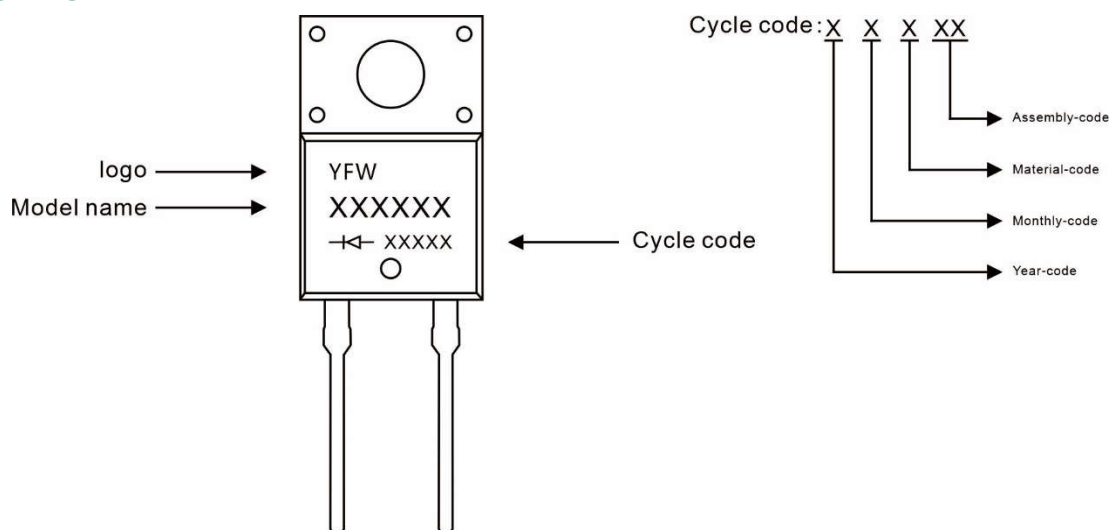
Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR15120AC	TO-220AC	0.067oz(1.9g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

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

Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR15120FAC	TO-220FAC	0.06oz(1.7g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220FAC

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.90	0.177	0.193
A1	2.34	2.74	0.092	0.108
A2	2.66	2.86	0.105	0.113
b	0.75	0.85	0.030	0.033
b1	1.24	1.44	0.049	0.057
c	0.40	0.60	0.016	0.024
D	10.00	10.32	0.394	0.406
E	15.75	16.05	0.620	0.632
e	4.88	5.28	0.192	0.208
F	3.10	3.5	0.122	0.138
L	12.90	13.50	0.508	0.531
L1	2.90	3.30	0.114	0.130
Φ	3.10	3.30	0.122	0.130

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