

Fast Recovery Epi Diodes

Reverse Voltage -200 TO 600 V

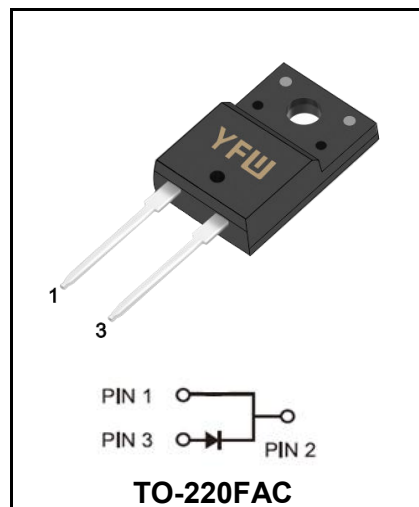
Forward Current - 20 A

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-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”.



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

Parameter	Symbols	MUR2020FAC	MUR2040FAC	MUR2060FAC	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 Ta=25°C Ta=125°C	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

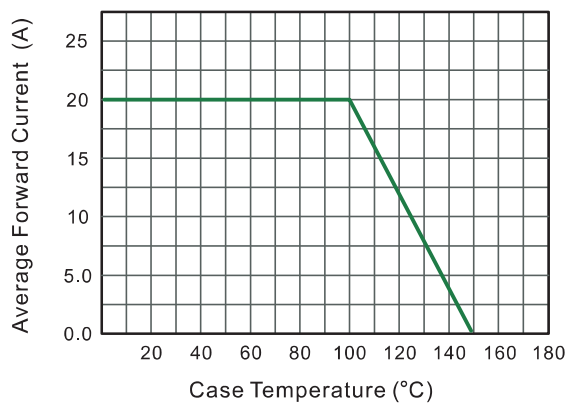


Fig.2 Typical Reverse Characteristics

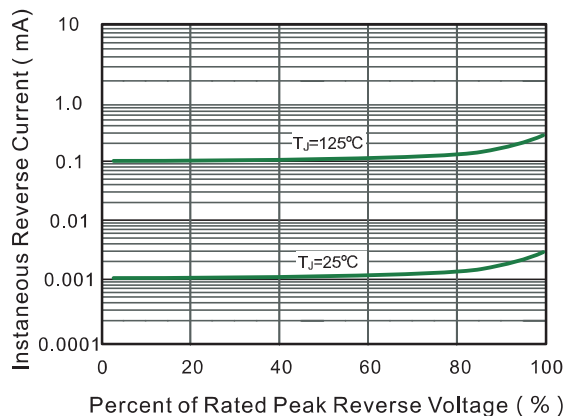


Fig.3 Typical Forward Characteristic

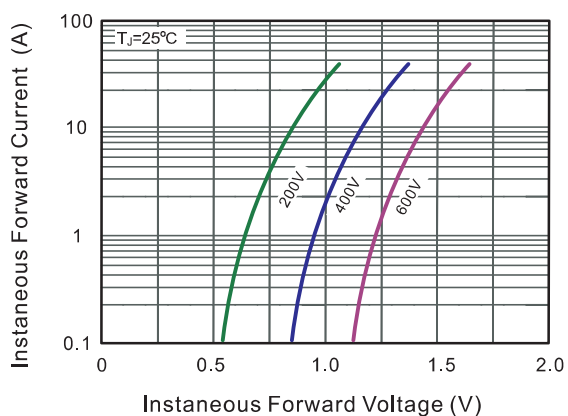
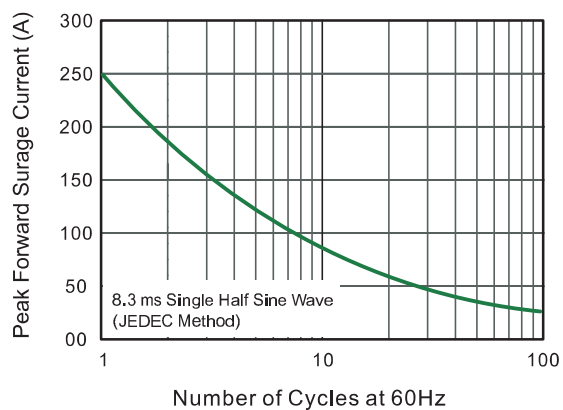
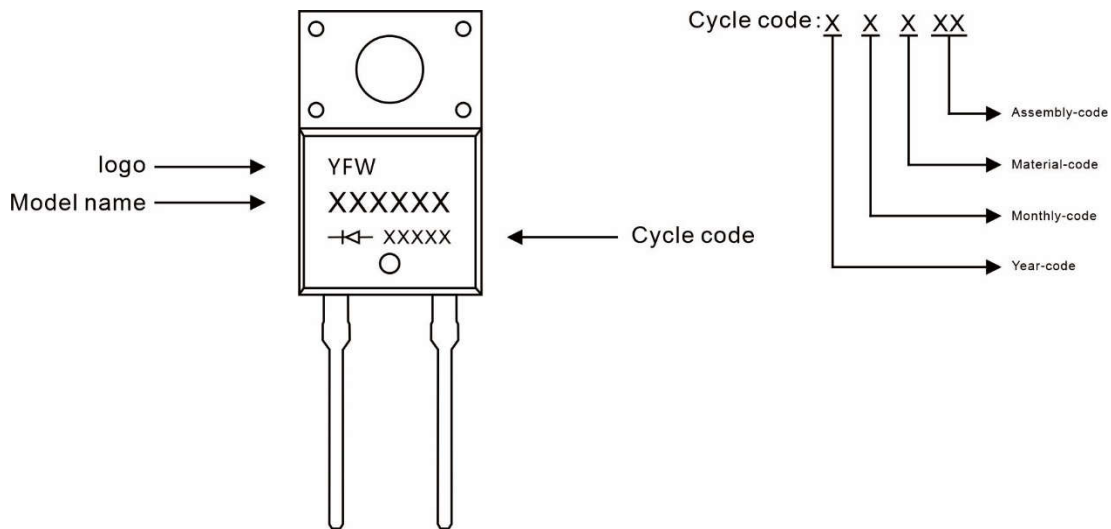


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MURXXXXFAC	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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