

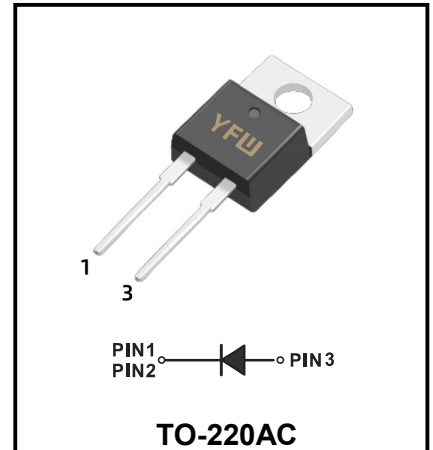
**FRED Super Fast Recovery Rectifiers**

**Reverse Voltage - 1200 V**

**Forward Current - 30.0A**

**Features**

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
260°C/10 seconds at terminals



**Mechanical Data**

- ◆ Case : Molded plastic body
- ◆ Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ Polarity : Polarity symbol marking on body
- ◆ Mounting Position : Any

**Maximum Ratings (Ta=25°C unless otherwise specified)**

PARAMETER	SYMBOLS	MUR30120AC	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	1200	V
Maximum RMS voltage	V <sub>RMS</sub>	840	V
Maximum DC blocking voltage	V <sub>DC</sub>	1200	V
Maximum average forward rectified current at Tc=120°C	I <sub>(AV)</sub>	30.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	350	A
Typical thermal resistance	R <sub>qJC</sub>	2.0	°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

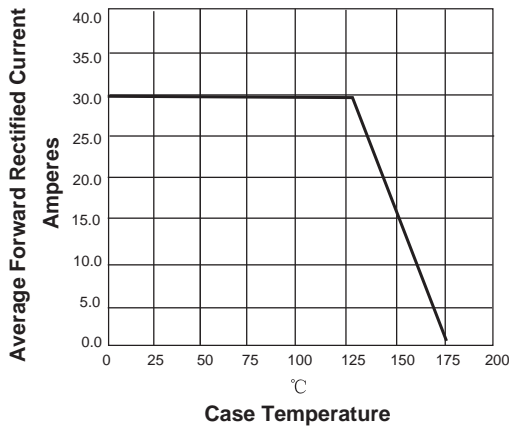
**Electrical Characteristics (Ta=25°C unless otherwise specified)**

PARAMETER	SYMBOLS	TYPE	MAX	UNITS
Maximum instantaneous forward voltage per diode at 30.0A	V <sub>F</sub>	3.0	3.5	V
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	50 500	50 2000	u A u A
Maximum reverse recovery time	T <sub>rr</sub>	50	60	ns

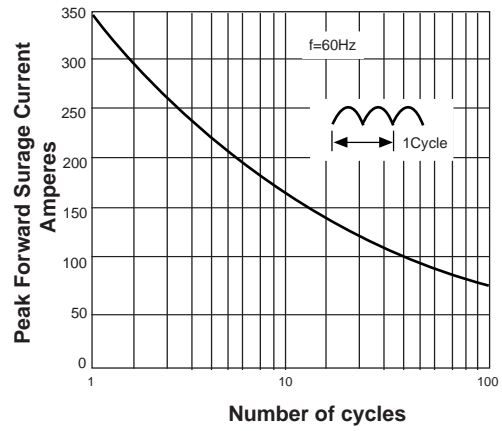
**Note:** Reverse recovery time test condition: IF=0.5A IR=1.0A Irr=0.25A

**Ratings And Characteristic Curves**

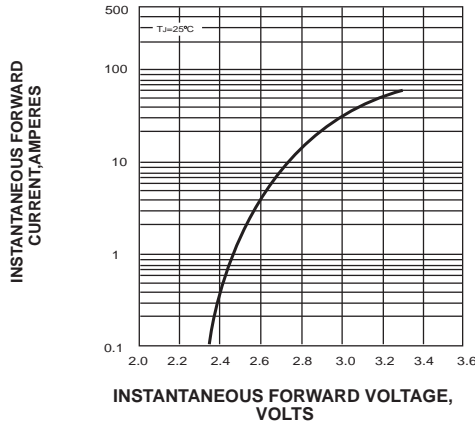
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



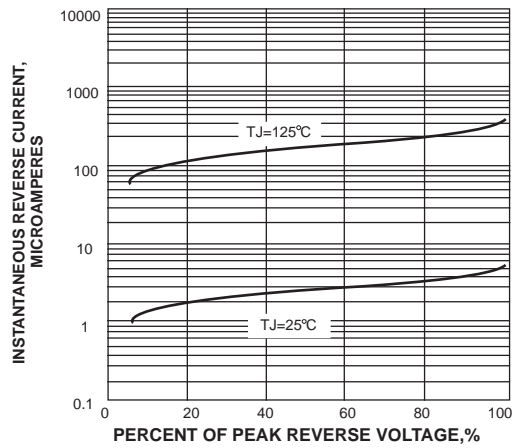
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG**



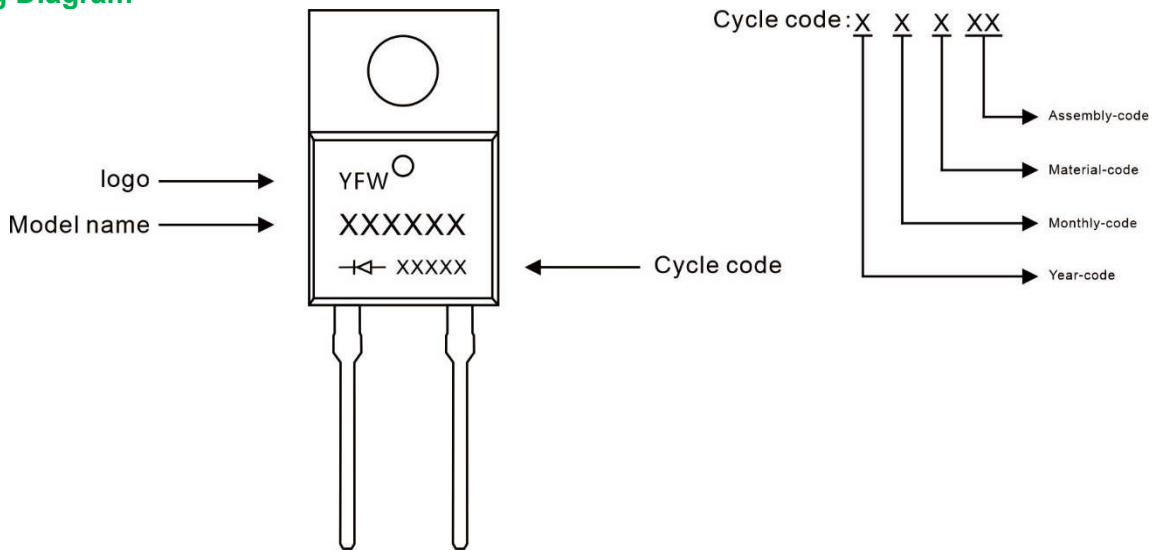
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**Marking Diagram**



**Ordering information**

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR1660AC	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	2.44	2.64	0.096	0.104
e1	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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