

Super Fast Recovery Rectifiers

Reverse Voltage - 50 to 600 V

Forward Current - 20 A

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

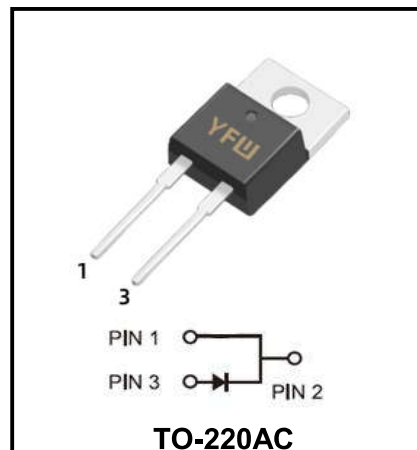
MECHANICAL DATA

- ◆Case: TO-220AC
- ◆Terminals:Solder plated, solderable per
MIL-STD-750,Method 2026
- ◆Polarity : Polarity symbol marking on body
- ◆Mounting Position : Any

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.



Parameter	Symbols	MUR2005DA	MUR2010DA	MUR2020DA	MUR2040DA	MUR2050DA	MUR2060DA	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	500	600	V
Maximum Average Forward Rectified Current at T _c = 110 °C	I_(AV)	20.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	300						A
Maximum Instantaneous Forward Voltage at 20A	V_F	1.0			1.5	2.5		V
Maximum DC Reverse Current T _a = 25 °C at Rated DC Blocking Voltage T _a =125 °C	I_R	10 500						μA
Maxinum reverse recovery time	T_{rr}	35			50			nS
Typical Thermal Resistance	R_{θJC}	3.5						°C/W
Operating junction temperature range	T_j	-55 ~ +150						°C
Storage temperature range	T_{stg}	-55 ~ +150						°C

Note:1.Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

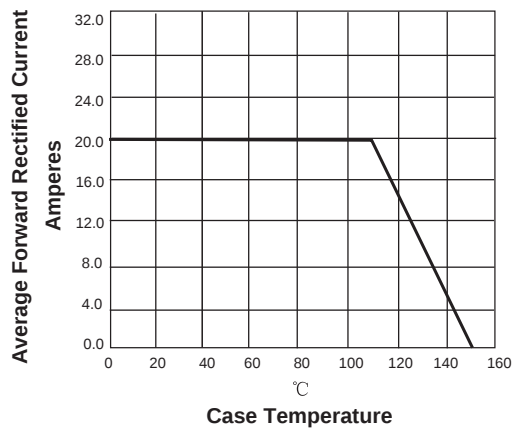


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

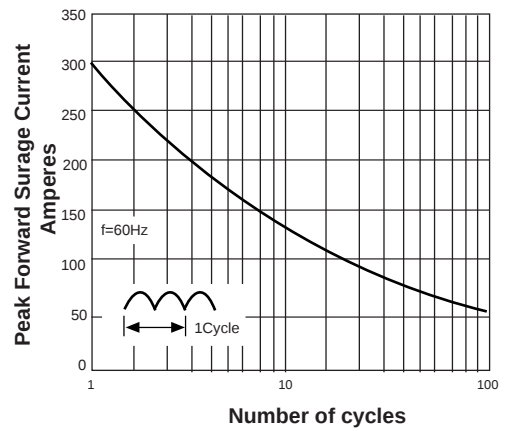


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

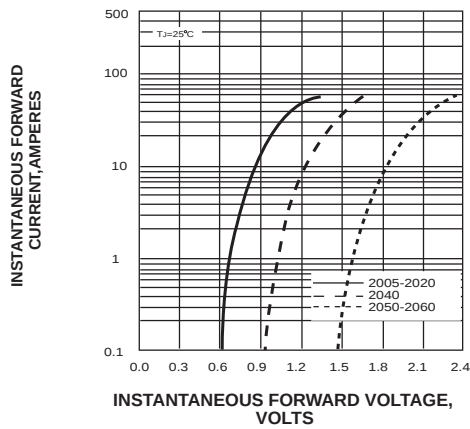
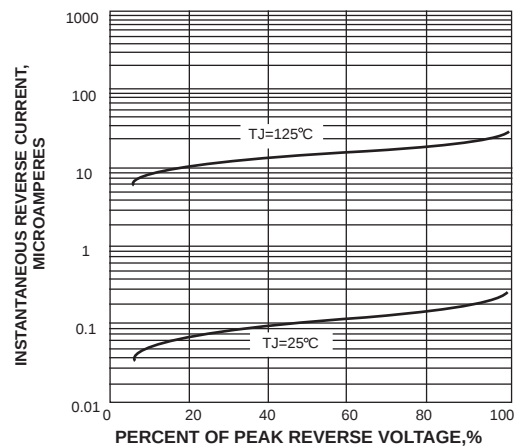
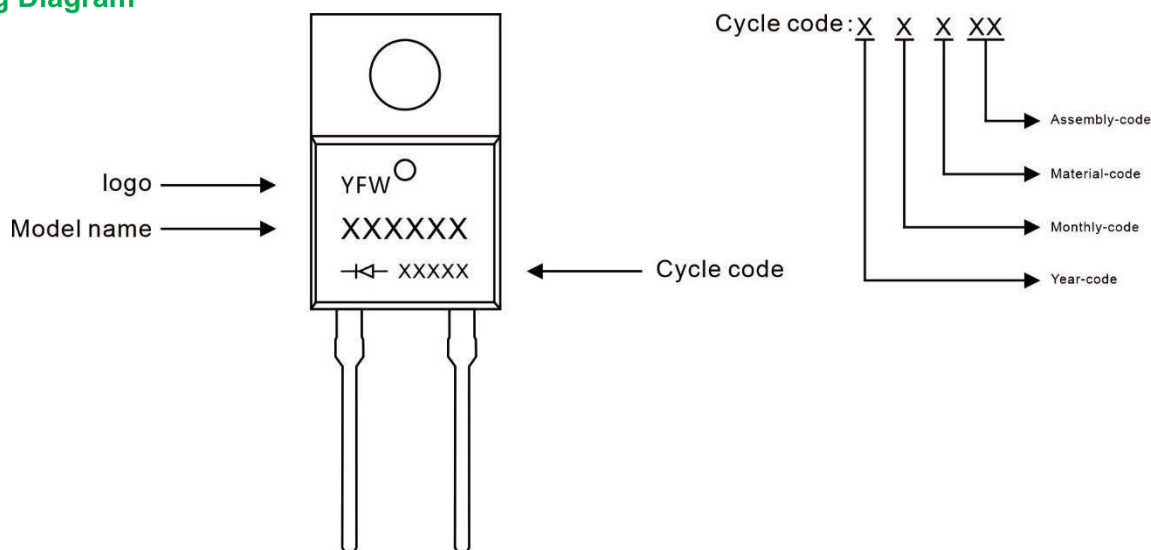


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR20XXDA	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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