

## 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

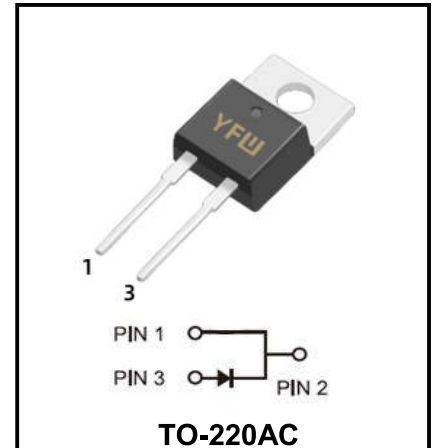
### MECHANICAL DATA

- ◆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 %.

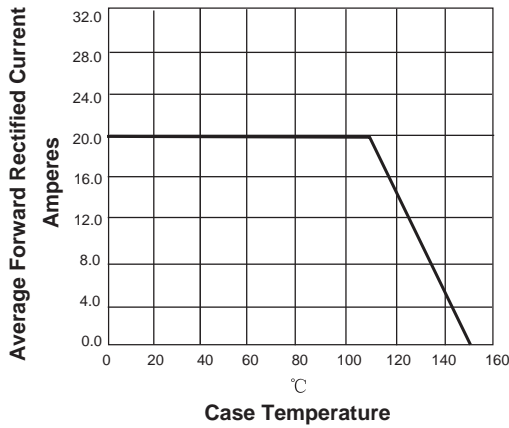


Parameter	Symbols	MUR2005DA	MUR2010DA	MUR2020DA	MUR2040DA	MUR2050DA	MUR2060DA	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	500	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	350	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	500	600	V
Maximum Average Forward Rectified Current at $T_c = 110\text{ }^\circ\text{C}$	$I_{(AV)}$	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 $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	$I_R$	10 500						$\mu\text{A}$
Maximum reverse recovery time	$T_{rr}$	35			50			nS
Typical Thermal Resistance	$R_{\theta JC}$	3.5						$^\circ\text{C/W}$
Operating junction temperature range	$T_j$	-55 ~ +150						$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 ~ +150						$^\circ\text{C}$

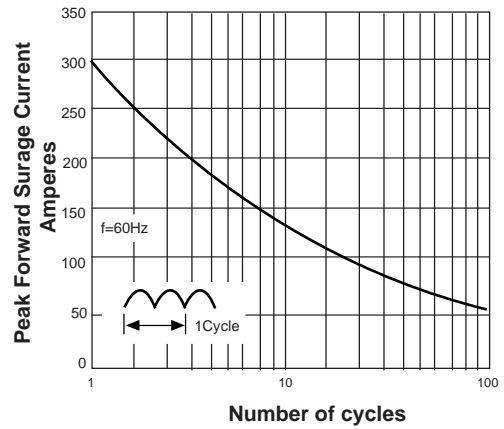
Note:1.Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

**Ratings And Characteristic Curves**

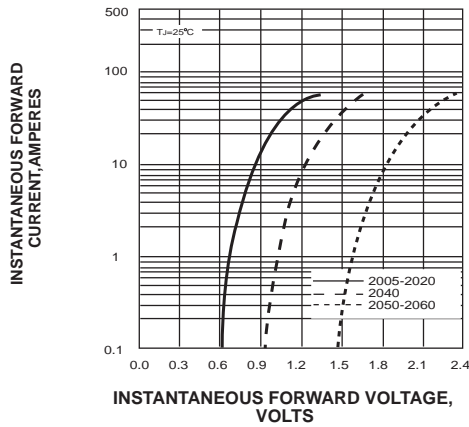
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



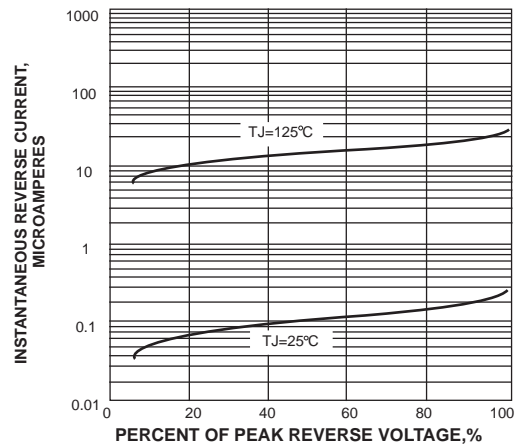
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



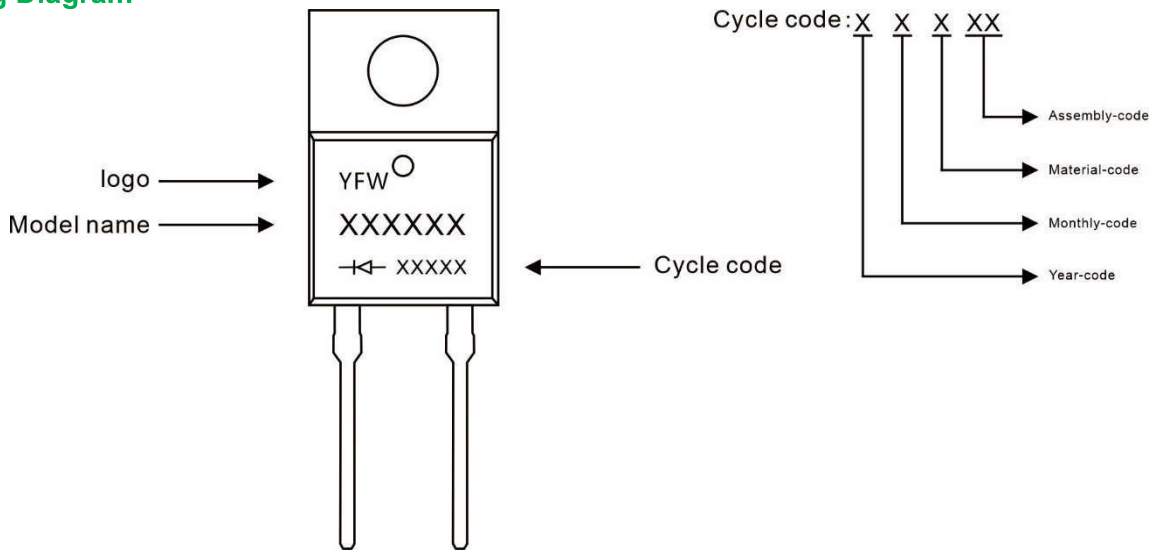
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



**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	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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