

Super Fast Recovery Rectifiers

Reverse Voltage -400 V

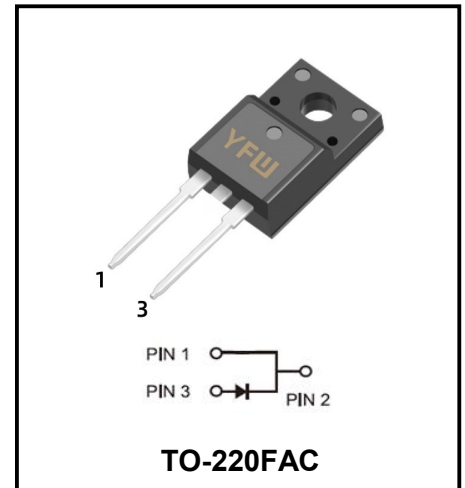
Forward Current - 20 A

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-220FAC/AF
- ◆Terminals:Solder plated, solderable per MIL-STD-750,Method 2026
- ◆Polarity: Polarity symbol marking on body
- ◆Mounting Position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C)

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS voltage	V_{RMS}	280	V
Maximum DC Blocking Voltage	V_{DC}	400	V
Maximum average forward rectified current at $T_c=110^{\circ}C$	$I_{(AV)}$	20	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200	A
Typical thermal resistance	$R_{\theta JC}$	3.5	$^{\circ}C/W$
Operating junction temperature range	T_J	-55 to +150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

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

Characteristics		Symbols	Value		Units
Forward Voltage Drop		V_F	Typ	Max	V
at $I_F=20A$	$T_A=25^{\circ}C$		1.10	1.3	
	$T_A=125^{\circ}C$		0.9	-	
Maximum Reverse Current at $V_R=400V$	$T_A=25^{\circ}C$	I_R	-	10	μA
	$T_A=125^{\circ}C$		-	500	μA
Maximum Reverse Recovery Time at $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$		T_{RR}	-	35	nS

Note: Reverse recovery time test condition: $I_F=0.5A$ $I_R=1.0A$ $I_{RR}=0.25A$

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

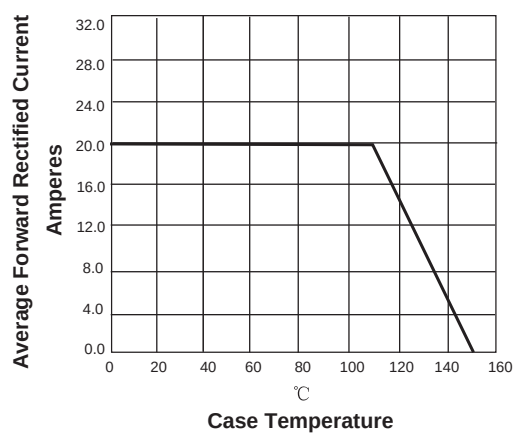


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

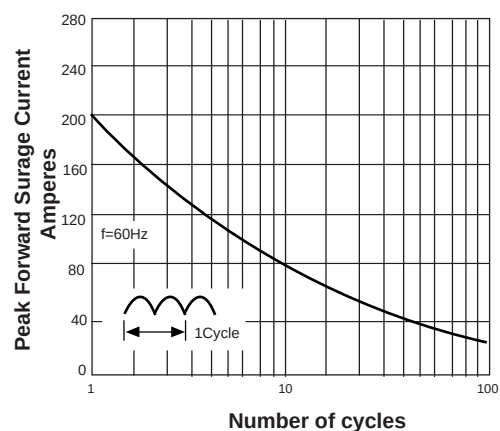


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

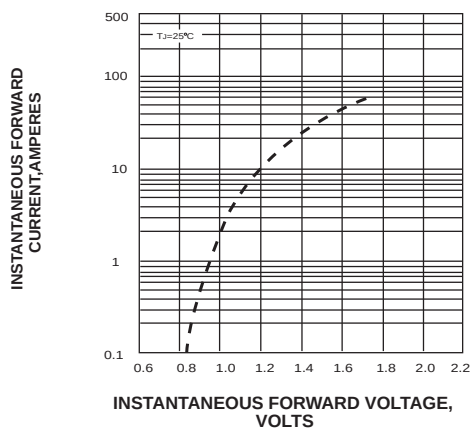
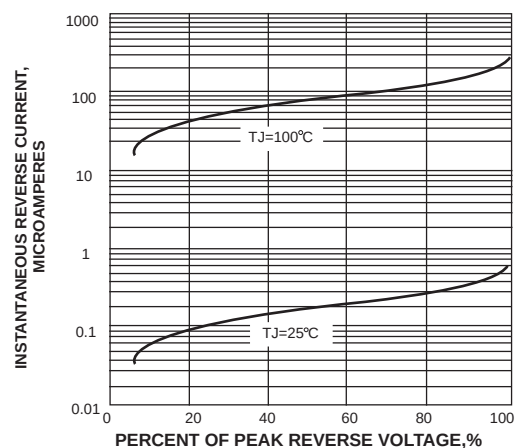
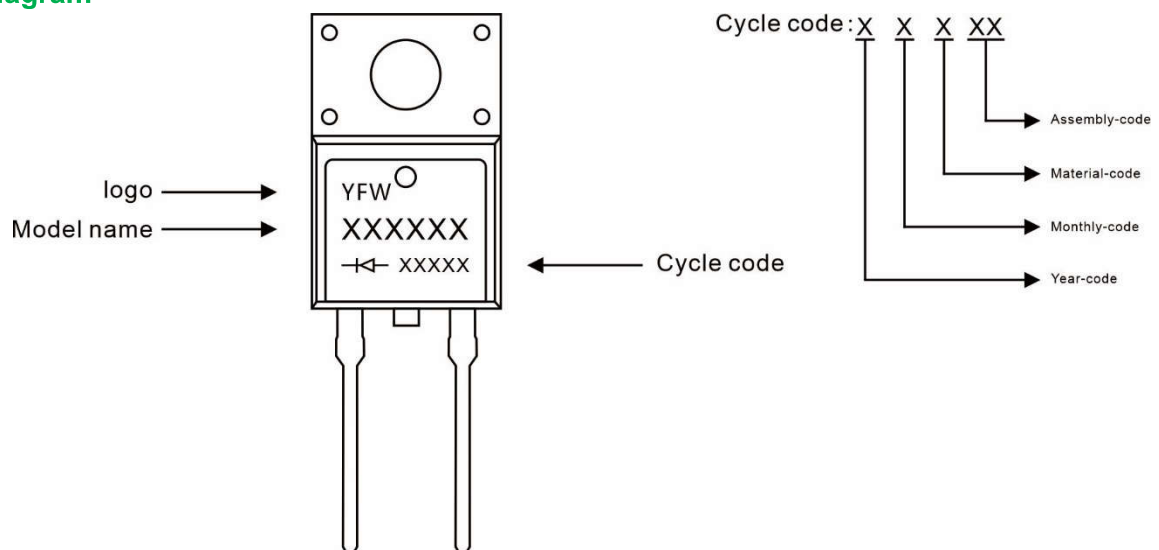


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR2040DAF	TO-220FAC	0.06oz(1.7g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220FAC

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	9.95	10.25	0.392	0.404
B	2.95	3.25	0.116	0.128
C	1.25	1.45	0.049	0.057
E	12.95	13.25	0.51	0.52
F	0.40	0.60	0.016	0.024
G	1.30	1.45	0.051	0.057
H	TYP2.54		TYP 0.1	
I	TYP5.08		TYP 0.2	
J	4.60	4.75	0.181	0.187
K	2.45	2.65	0.097	0.104
L	6.5	6.8	0.256	0.268
M	15.4	16.0	0.606	0.630
N	2.75	3.05	0.108	0.120
O	0.45	0.55	0.018	0.022
P	0.6	0.8	0.024	0.032
Q	0.76	0.84	0.030	0.033

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