

FRED Super Fast Recovery Rectifier

Reverse Voltage - 600 V

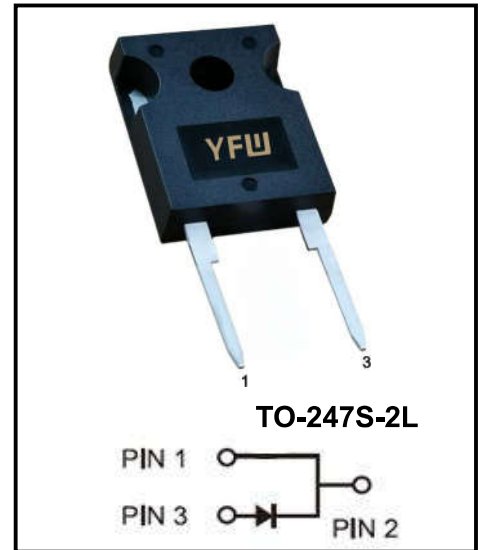
Forward Current - 60A

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-247S-2L
- ◆ Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ Polarity : Polarity symbol marking on body
- ◆ Mounting Position : Any



Primary Characteristic

I_{AV}	60A
V_{RRM}	600V
I_{FSM}	420A
V_F	1.9V
T_{rr}	55ns
T_{jmax}	175°C

Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Working Peak Reverse Voltage	V_{RWM}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	I_{AV}	60	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	600	A
Operating Temperature Range	T_J	175	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	1.5	°C/W

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbol	Typ.	Max.	Unit
Maximum instantaneous forward voltage per diode at 60A	V_F	1.9	2.5	V
Maximum DC reverse current at rated DC blocking voltage	I_R	0.5	5	μA
		50	200	μA
Maximum reverse recovery time	T_{rr}	55	75	ns

Note:1.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

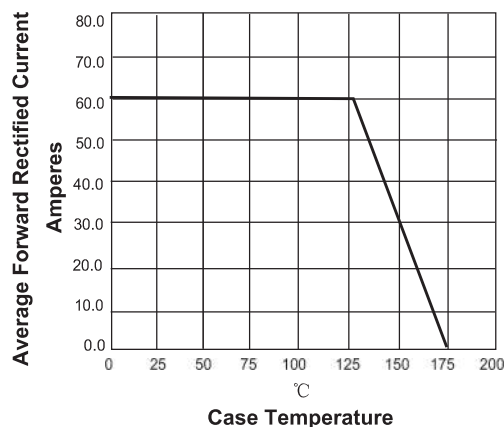


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

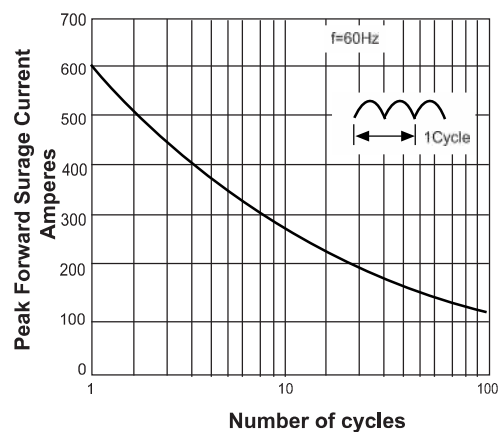


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

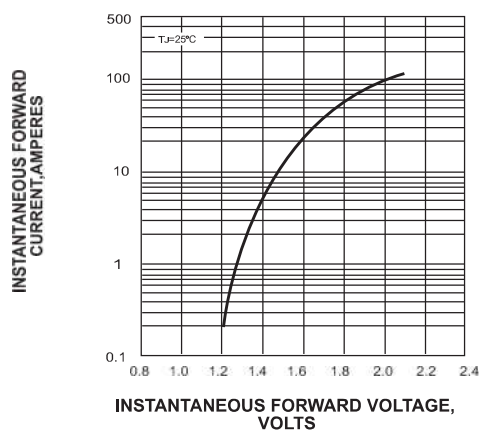
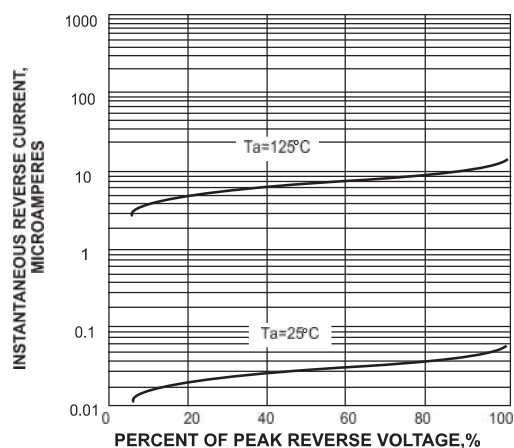
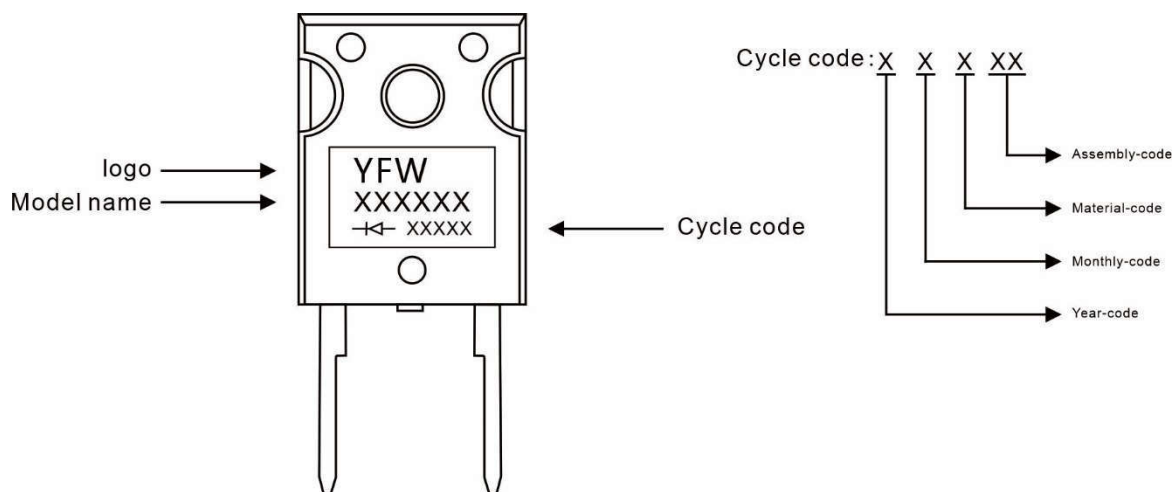


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR6060WS	TO-247S-2L	0.158oz(4.48g)	30pcs/tube	600PCS/Box 2400PCS/Carton

Package Dimensions

TO-247S-2L

Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
E	15.40	15.80	0.60	0.62
D	19.50	20.50	0.77	0.80
S	5.30	5.50	0.21	0.22
ØR	4.50	5.50	0.18	0.22
ØP	3.40	3.80	0.13	0.15
L	14.0	14.5	0.55	0.57
L1	3.70	4.30	0.15	0.17
L2	18.5		0.73	
b	1.15	1.25	0.04	0.05
b1	1.80	2.20	0.07	0.09
A	4.80	5.00	0.19	0.20
c	0.40	0.70	0.01	0.02
A1	2.30	2.45	0.09	0.10

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