

High Efficiency Rectifiers

Reverse Voltage -1200 V

Forward Current - 40 A

FEATURES

- ◆Glass passivated chip junctions
- ◆High Speed recovery time for switching mode application
- ◆High Forward Surge Capability
- ◆Low Reverse Current
- ◆Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- ◆Case: TO-247
- ◆Leads:Solderable per mil-std-202, Method 208

Primary Characteristic

I_F	2*20A
V_{RRM}	1200V
I_{FSM}	500A
V_F	2V
T_J Max	150°C

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

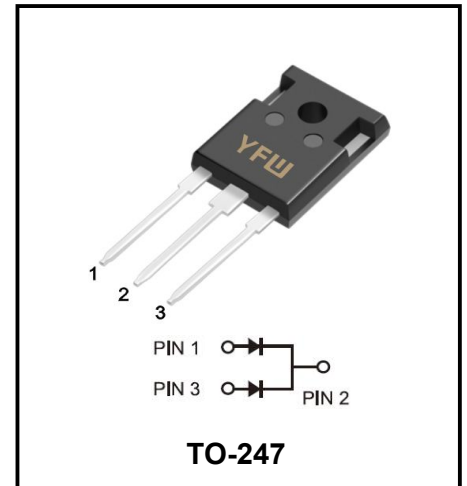
Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
Maximum RMS voltage	V_{RMS}	850	V
Maximum DC Blocking Voltage	V_{DC}	1200	V
Average Forward Current	I_F	per device 40	A
		per diode 20	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	I_{FSM}	500	A
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Typical Thermal Resistance(Note 2)	R_{θJC}	1.5	°C/W

Note: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, I_{rr}=0.25A.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbols	Value	Units
Typical Forward Voltage at I _F =20A	V_F	2	V
Max. DC Reverse Current at T _A =25°C	I_R	5	uA
Rated DC Blocking Voltage T _A =125°C		250	uA
Typical Reverse Recovery Time (Note 1)	T_{RR}	200	nS

Note: 2. Thermal resistance from junction to case.



RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

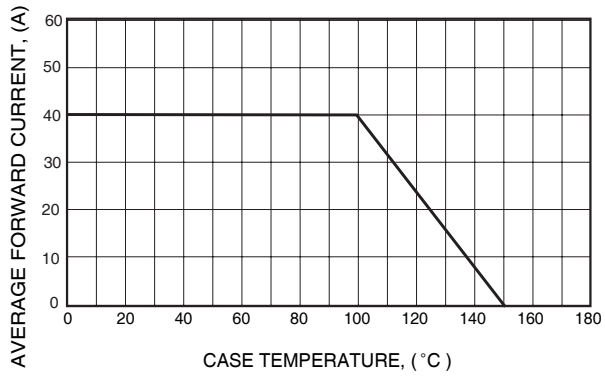


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

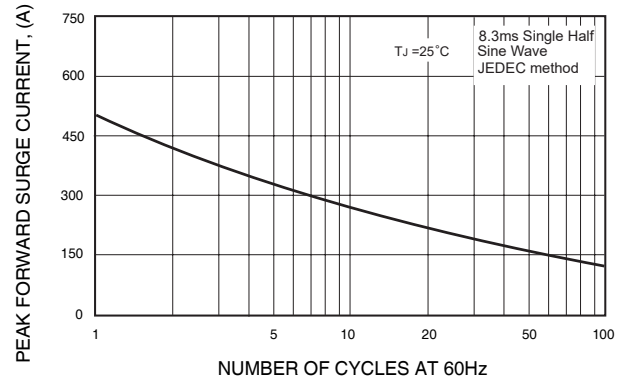


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

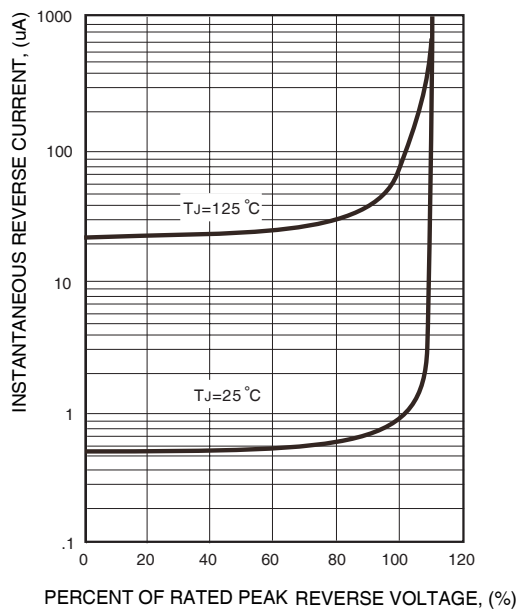
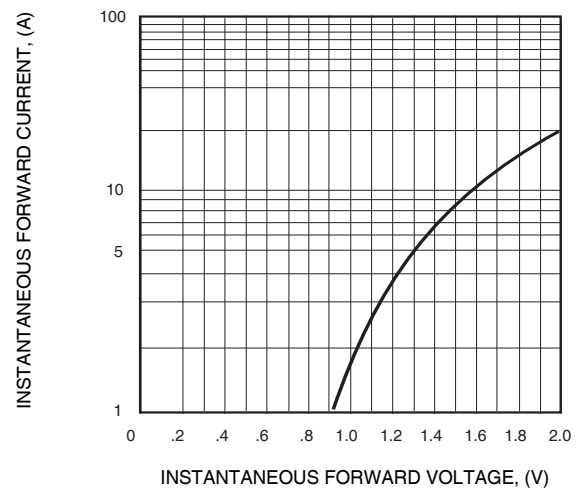
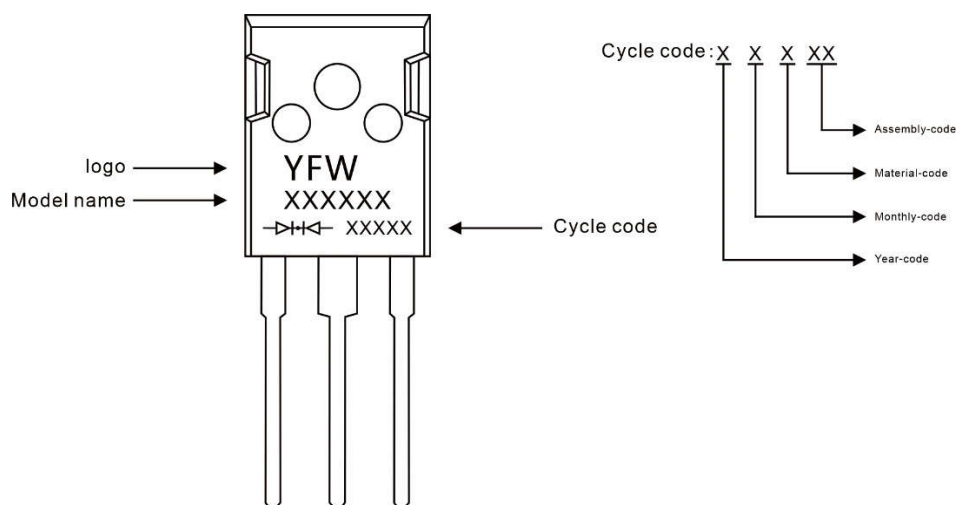


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR40120SPT	TO-247	0.209oz(5.93g)	30pcs/tube	600PCS/Box 2400PCS/Carton

Package Dimensions

TO-247

Symbol	Dimensions in mm		Dimensions in Inch	
	Min.	Max.	Min.	Max.
A	4.90	5.10	0.193	0.201
A1	1.90	2.10	0.075	0.083
A2	2.29	2.54	0.090	0.100
b	1.00	1.40	0.039	0.055
b1	2.00	2.20	0.079	0.087
b2	3.00	3.20	0.118	0.126
c	0.50	0.70	0.020	0.028
D	15.75	16.05	0.620	0.632
E	20.20	20.80	0.795	0.819
e	5.45 (BSC)		0.215 (BSC)	
e1	10.90 (BSC)		0.429 (BSC)	
F	6.05	6.25	0.238	0.246
F1	5.80	6.00	0.228	0.236
L	20.10	20.40	0.791	0.803
L1	4.05	4.35	0.159	0.171
Φ	3.50	3.70	0.138	0.146

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