

High Efficiency Rectifiers

Reverse Voltage - 200V

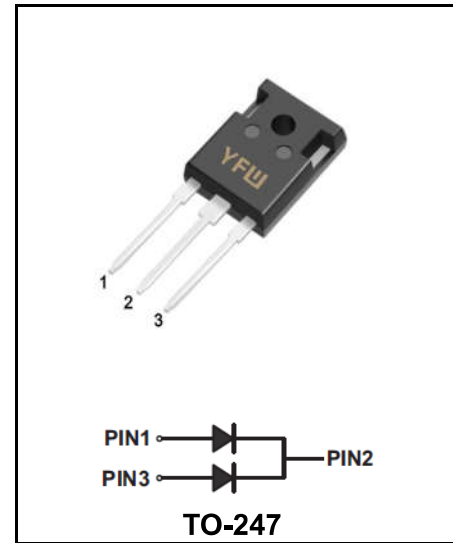
Forward Current - 40A

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

- ◆ Leads: Solderable per mil-std-202, Method 208
- ◆ Polarity: as marked
- ◆ Mounting torque: 5 in-lbs maximum
- ◆ Terminals: Puretin plated



Maximum Ratings & Electrical Characteristics

Rating	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
DC Blocking Voltage	V_{DC}	200	V
Average Forward Current per device per diode	I_F	40 20	A
Max.Forward Surge Current ,8.3ms single half sine-wave superimposed on rated load	I_{FSM}	500	A
Typical Forward Voltage at $I_F=20A$	V_F	1.0	V
Max. DC Reverse Current at Rated DC Blocking Voltage	I_R	5 250	μA
Typical Reverse Recovery Time (Note 1)	T_{RR}	50	nS
Typical Thermal Resistance(Note 2)	$R_{\theta-JC}$	1.5	$^{\circ}C/W$
Operating Junction Temperature Range	T_J	-55 to +150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

NOTES:

1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
2. Thermal resistance from junction to case.

Ratings and Characteristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

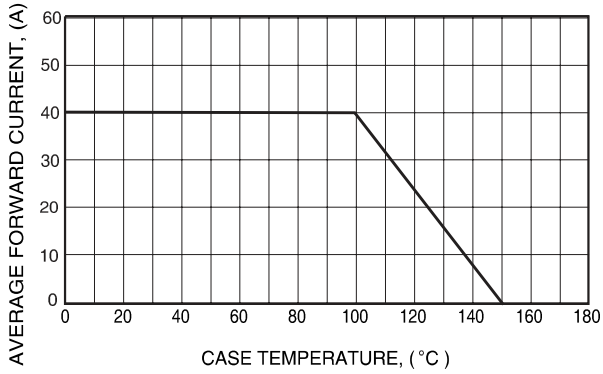


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

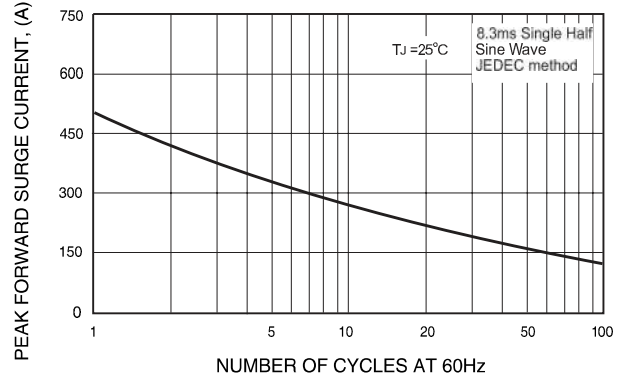


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

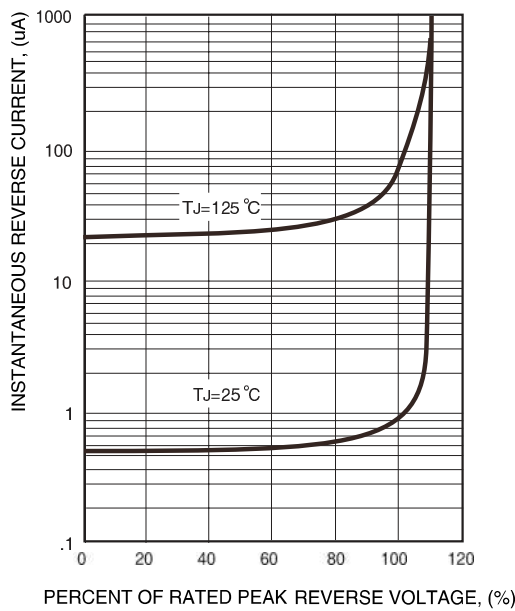
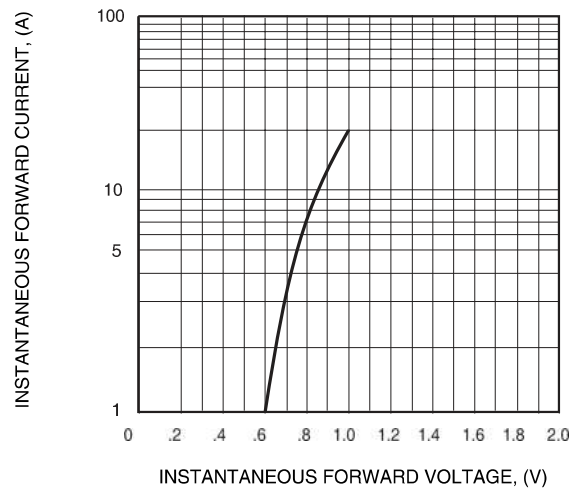
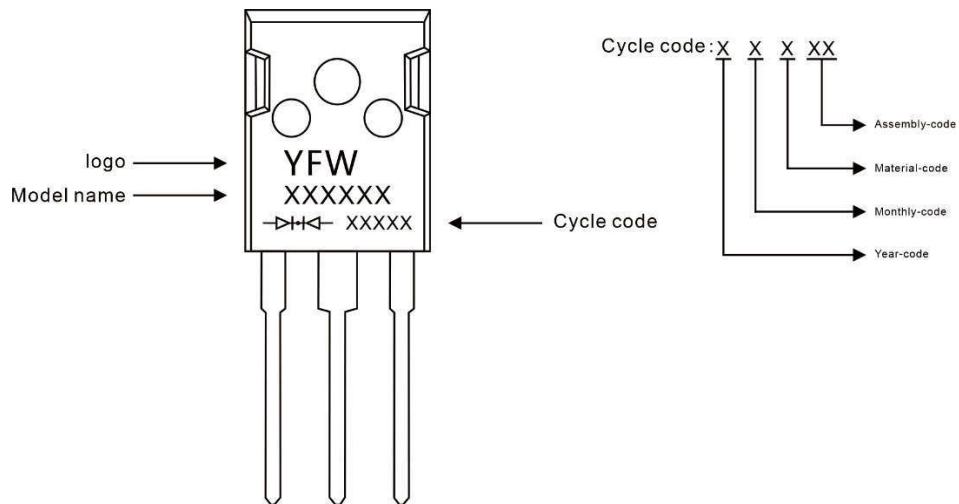


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR4020SPT	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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