

Super Fast Recovery Rectifiers

Reverse Voltage - 200 V

Forward Current - 20 A

FEATURES

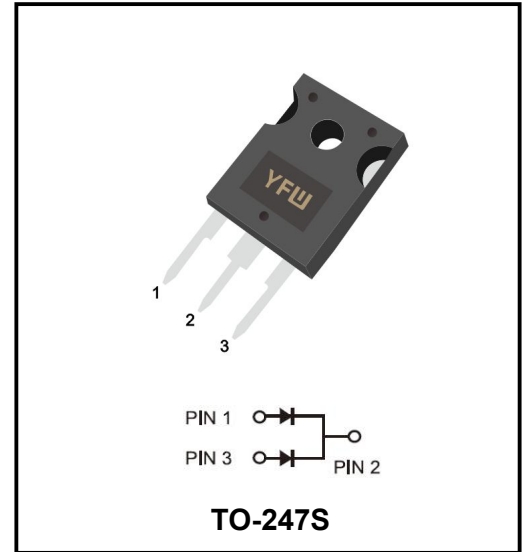
- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Construction utilizes void-free molded plastic technique
- ◆Low reverse leakage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed 250°C/10 seconds at terminals

MECHANICAL DATA

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

Primary Characteristic

I_F	2*10A
V_{RRM}	200V
I_{FSM}	175A
V_F	0.81V
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}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC Blocking Voltage at T _c =110 °C	V_{DC}	200	V
Average Forward Current	I_F	per device 20	A
		per diode 10	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	I_{FSM}	175	A
Operating Junction Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C
Typical Thermal Resistance(Note 2)	R_{θJC}	35	°C/W

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbols	Typ	Max	Units
Typical Forward Voltage at I _F =10A	V_F	TA=25°C 1.0	-	V
		TA=125°C 0.81	-	
Maximum Reverse Current at V _R =200V	I_R	TA=25°C 5	-	uA
		TA=125°C 500	-	uA
Maximum Reverse Recovery Time at I _F =0.5A, I _R =1A, I _{RR} =0.25A	T_{RR}	35	-	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

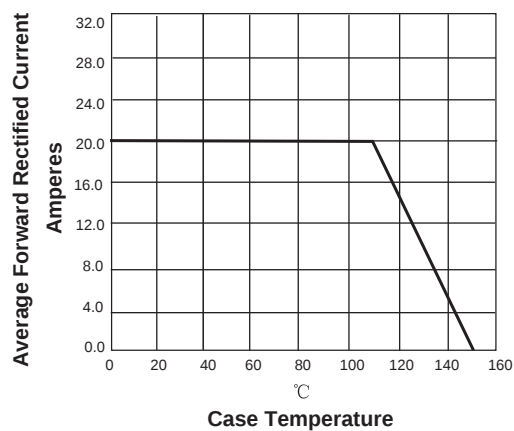


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

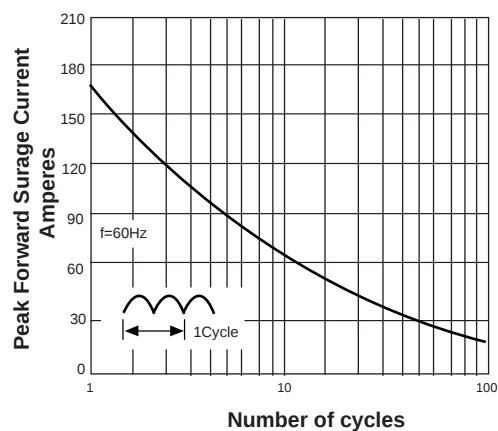


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

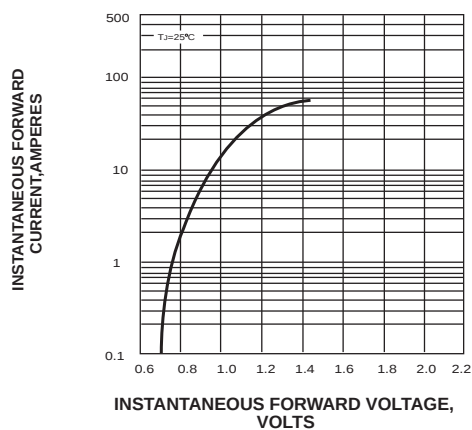
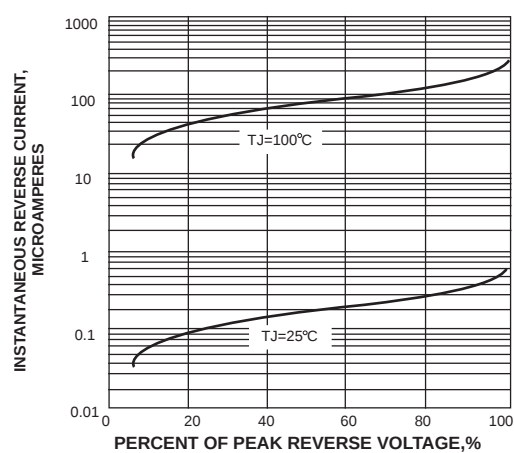
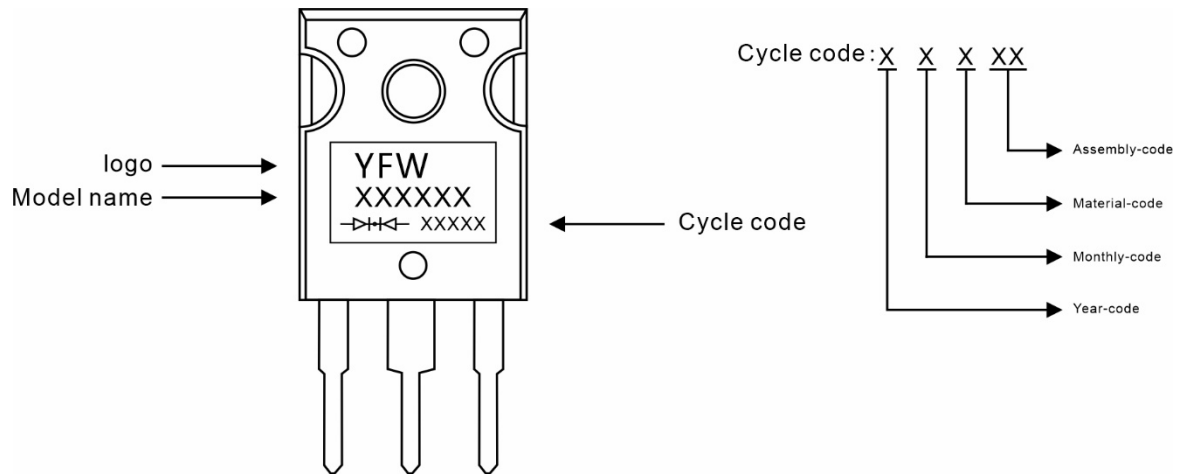


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MBR2020SPTS	TO-247S	0.158oz(4.48g)	30pcs/tube	600PCS/Box 2400PCS/Carton

Package Dimensions

TO-247S

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	
e	5.20	5.70	0.20	0.22
b	1.15	1.25	0.04	0.05
b1	1.80	2.20	0.07	0.09
b2	2.80	3.20	0.11	0.13
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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