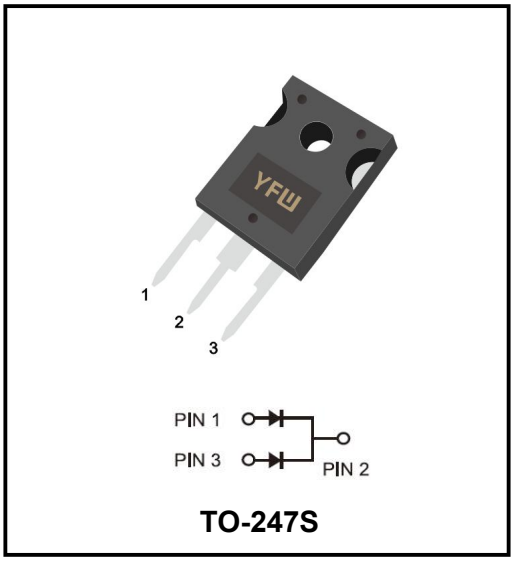
Schottky Barrier Rectifiers

Reverse Voltage - 100V

Forward Current - 80A



TO-247S

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℃/10 seconds at terminals

Mechanical Data

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

Primary Characteristic

I_o	**2*40A**
V_{RRM}	**100V**
I_{FSM}	**400A**
V_F	**0.78V**
T_J Max	**175°C**

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

Parameter		Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Maximum RMS voltage		V_{RMS}	70	V
Maximum DC Blocking Voltage		V_{DC}	100	V
Maximum average forward rectified current at TC=120°C	Per device	$I_{(AV)}$	80	A
	Per diode		40	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave		I_{FSM}	400	A
Operating Temperature Range		T_J	-55 to +175	°C
Storage Temperature Range		T_{STG}	-55 to +150	°C
Typical Thermal Resistance		$R_{\theta JC}$	1.5	°C/W

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Typ	Max	Units
Maximum instantaneous forward voltage per diode at 40.0A	T_A=25°C	V_F	0.87	0.90	V
	T_A=125°C	V_F	0.78	0.81	V
Maximum DC reverse current at rated DC blocking voltage	T_A=25°C	I_R	0.5	50	uA
	T_A=100°C		2	20	mA

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

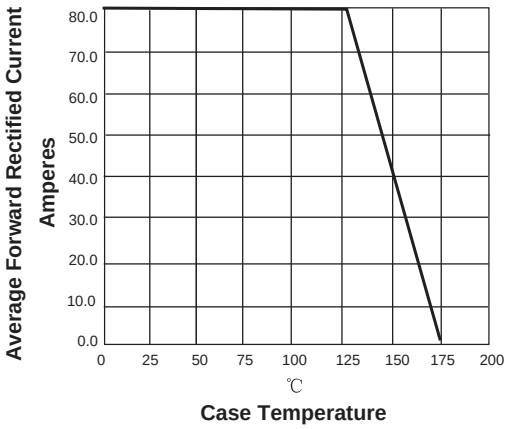


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

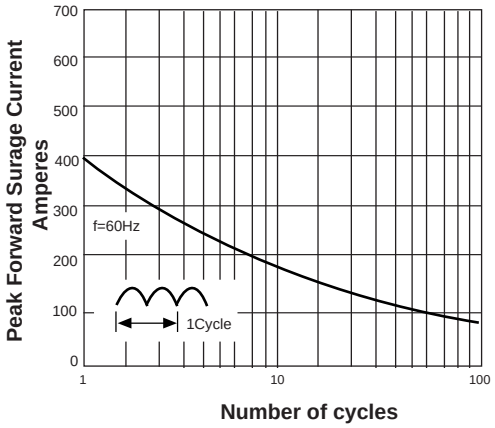


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

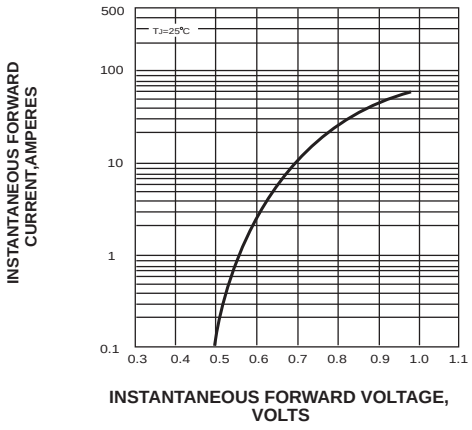
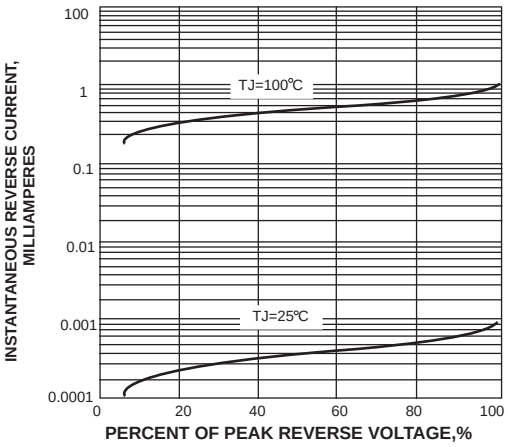
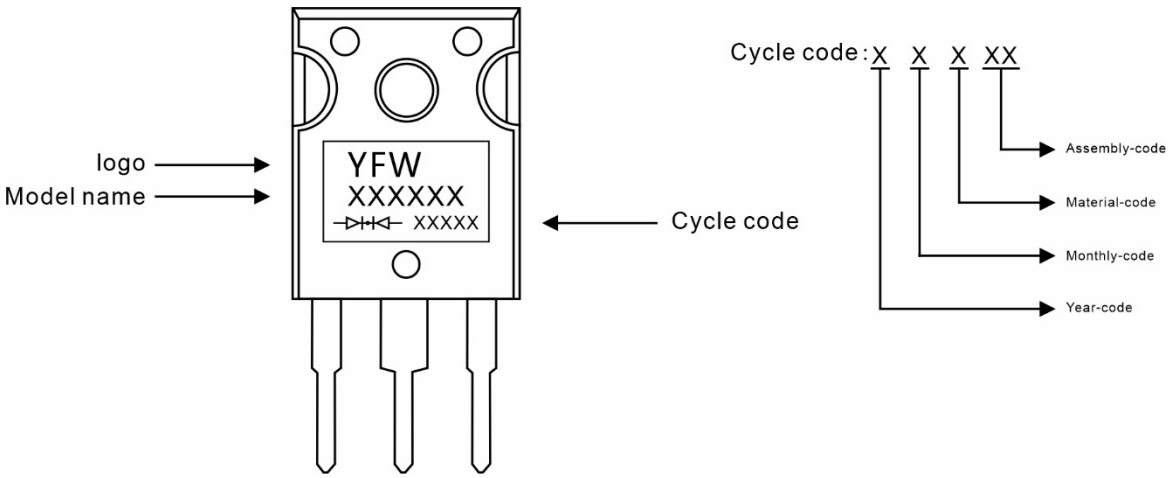


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram

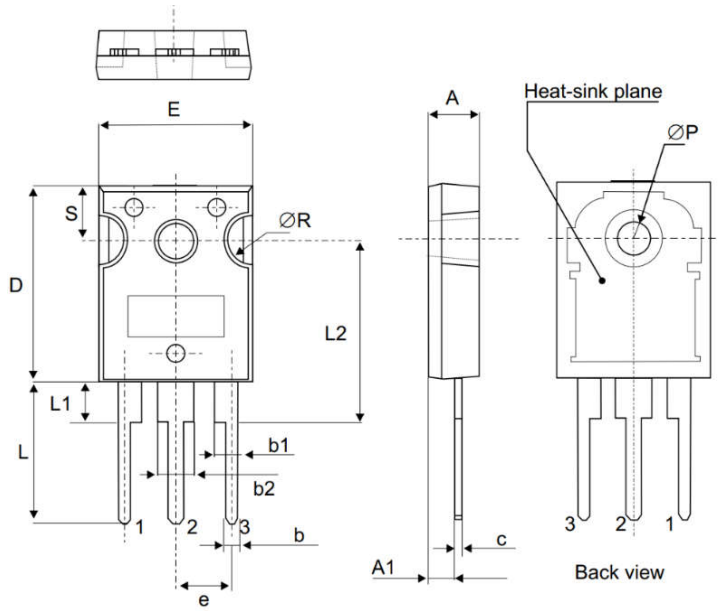


Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MBR80100PTS	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
⌀R	4.50	5.50	0.18	0.22
⌀P	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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