

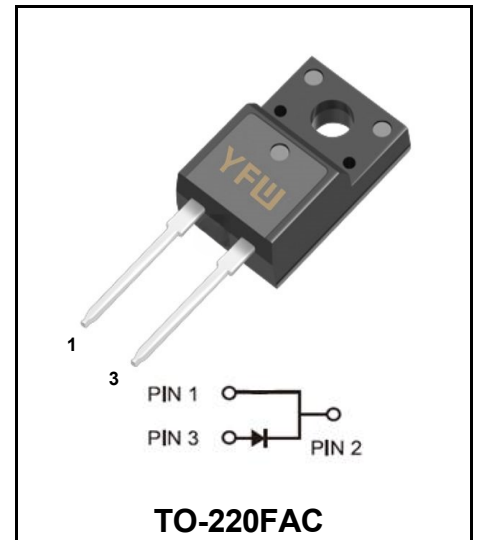
Schottky Barrier Rectifiers

Reverse Voltage - 40 to 200 V

Forward Current – 10A

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 : Molded plastic body
- ♣ Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- ♣ Polarity : Polarity symbol marking on body
- ♣ Mounting Position : Any

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MBR1040FAC	MBR1045FAC	MBR1060FAC	MBR10100FAC	MBR10150FAC	MBR10200FAC	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	40	45	60	100	150	200	v
Maximum RMS voltage	V_{RMS}	28	31.5	42	70	105	140	v
Maximum DC blocking voltage	V_{DC}	40	45	60	100	150	200	v
Maximum average forward rectified current at $T_c=110^{\circ}C$	$I_{(AV)}$	10.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0						A
Maximum instantaneous forward voltage at 10.0A	V_F	0.55		0.70	0.85	0.95		v
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	I_R	0.5 50			0.05 10			mA
Typical thermal resistance	R_{qjC}	3.5						°C/W
Operating junction temperature range	T_J	-55 to +150						°C
Storage temperature range	T_{STG}	-55 to +150						°C

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

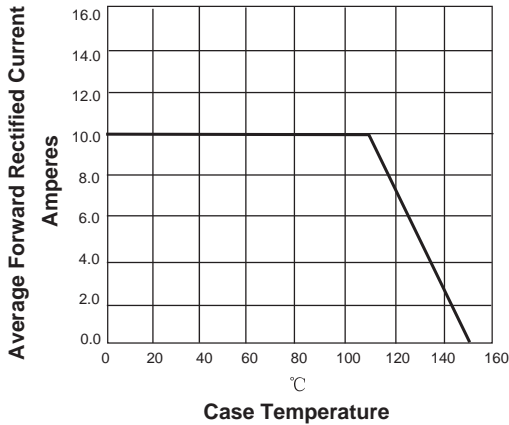


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

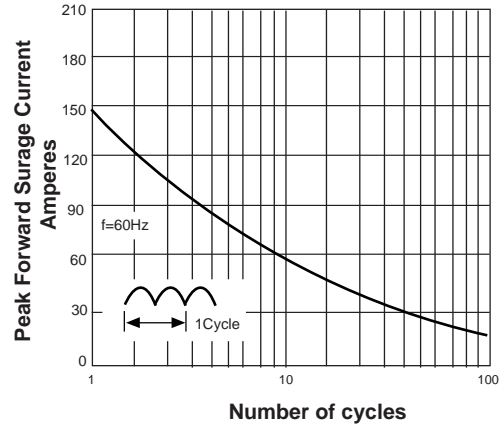


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

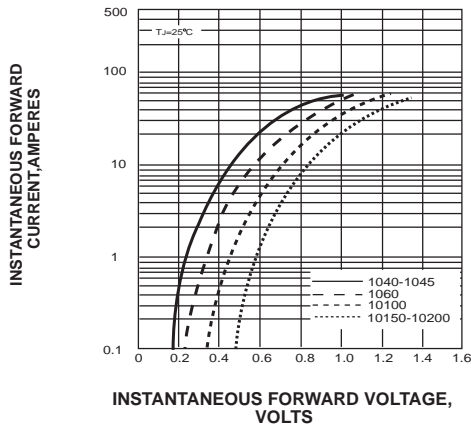
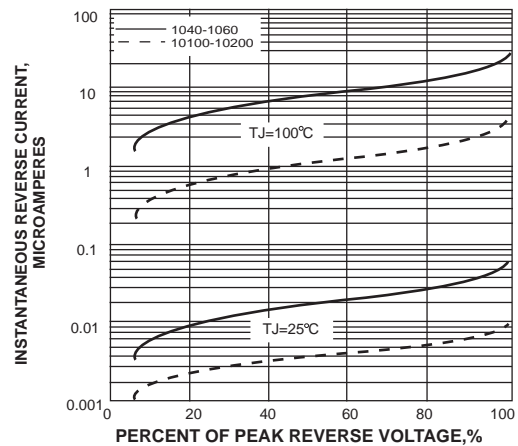
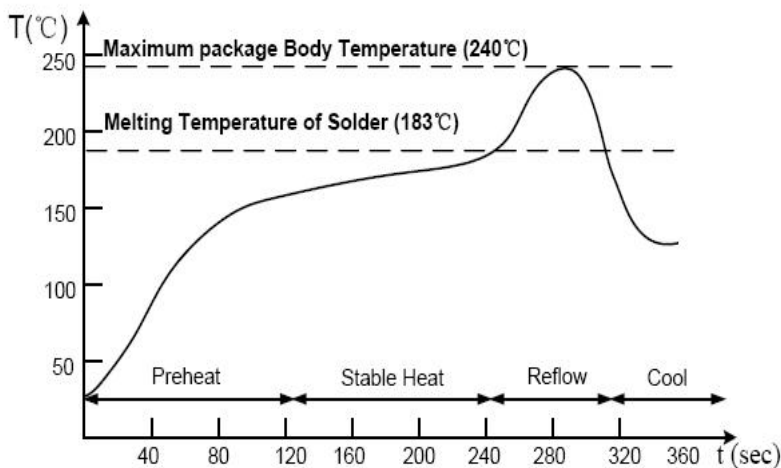


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



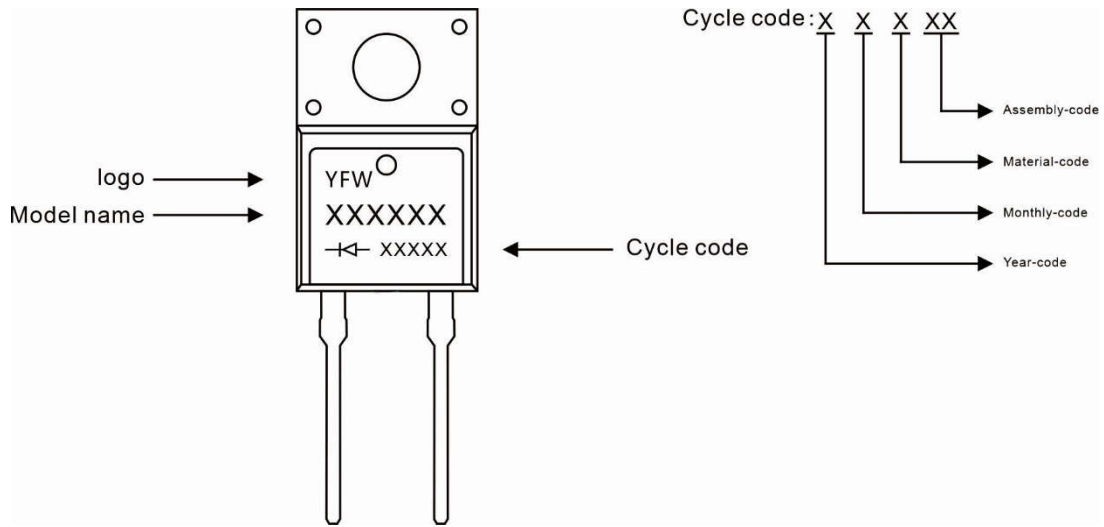
Suggested Soldering Temperature Profile



Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MBRXXXXFAC	TO-220FAC	0.06oz(1.7g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220FAC

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.90	0.177	0.193
A1	2.34	2.74	0.092	0.108
A2	2.66	2.86	0.105	0.113
b	0.75	0.85	0.030	0.033
b1	1.24	1.44	0.049	0.057
c	0.40	0.60	0.016	0.024
D	10.00	10.32	0.394	0.406
E	15.75	16.05	0.620	0.632
e	4.88	5.28	0.192	0.208
F	3.10	3.5	0.122	0.138
L	12.90	13.50	0.508	0.531
L1	2.90	3.30	0.114	0.130
Φ	3.10	3.30	0.122	0.130

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