

Schottky Barrier Rectifiers

Reverse Voltage - 40 to 200 V

Forward Current - 10 A

Features

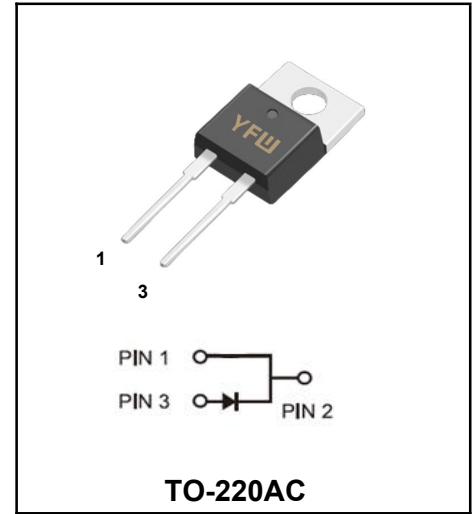
- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Construction utilizes void-free molded plastic technique
- ◆Low reverse leakage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed
250 °C/10 seconds at terminals

Mechanical Data

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

Primary Characteristic

$I_{(AV)}$	10A
V_{RRM}	40 to 200V
I_{FSM}	150A
V_F	0.55/0.7/0.85/0.95V
$T_J \text{ Max}$	150°C



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

Parameter	Symbols	MBR 1040AC	MBR 1045AC	MBR 1060AC	MBR 10100AC	MBR 10150AC	MBR 10200AC	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	60	100	150	200	V
Working Peak Reverse Voltage	V_{RW}	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 $T_c=110^\circ\text{C}$	$I_{(AV)}$	10.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150						A
Operating Temperature Range	T_J	-55to+150						°C
Storage Temperature Range	T_{STG}	-55to+150						°C
Typical thermal resistance	$R_{\theta JC}$	3.5						°C/W

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Value				Units
Maximum instantaneous forward voltage per diode at 10.0A		V _F	0.55	0.7	0.85	0.95	V
Maximum DC reverse current at rated DC blocking voltage	T _A =25°C	I _R	0.5		0.05		mA
	T _A =100°C		50		10		

Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

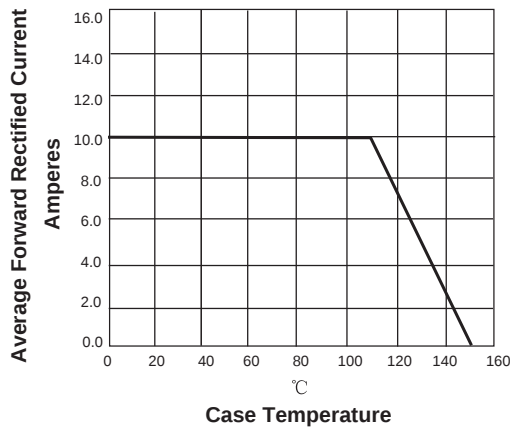


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

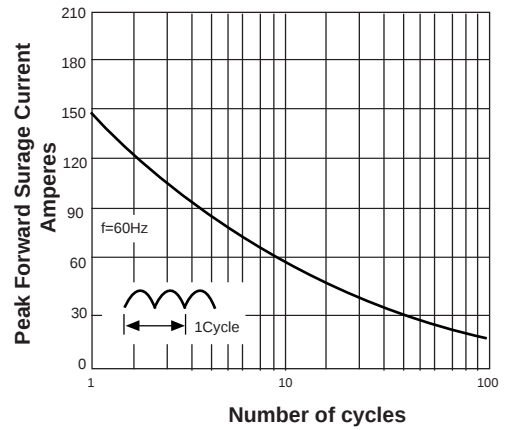


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

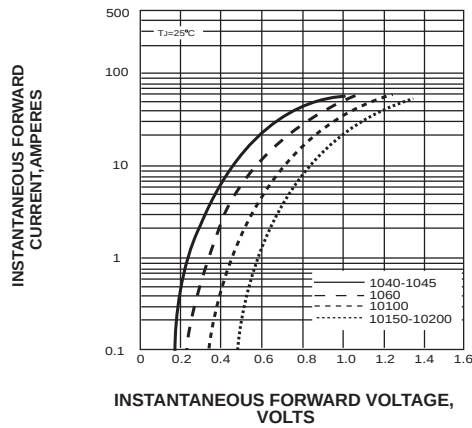
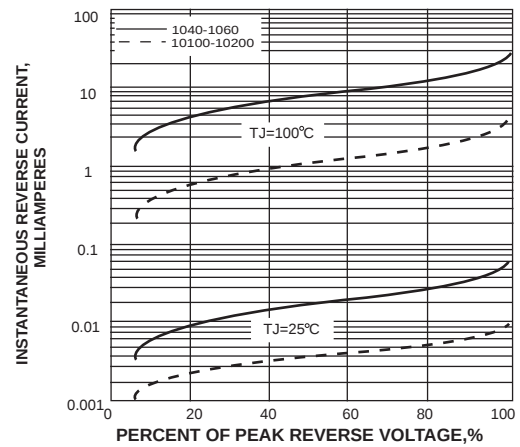
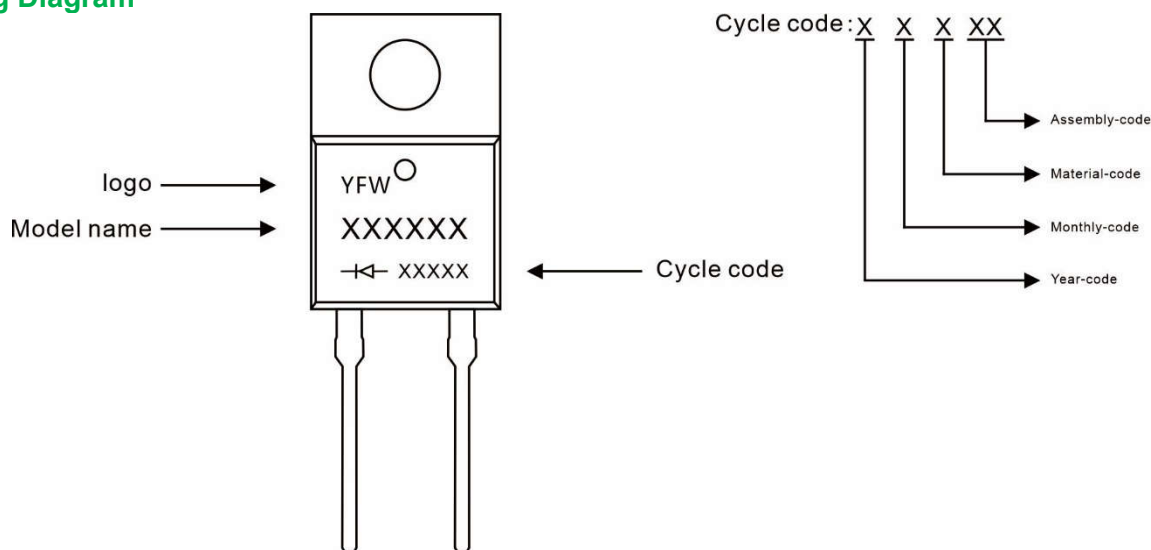


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MBRXXXXXAC	TO-220AC	0.067oz(1.9g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220AC

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.34	4.67	0.171	0.184
A1	2.52	2.82	0.099	0.111
b	0.71	0.91	0.028	0.036
b1	1.17	1.37	0.046	0.054
c	0.30	0.50	0.012	0.020
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	8.90	0.335	0.350
E1	12.00	12.50	0.472	0.492
e	4.88	5.28	0.192	0.208
F	2.60	2.80	0.102	0.110
L	13.20	13.80	0.520	0.543
L1	3.80	4.20	0.150	0.165
Φ	3.60	3.96	0.142	0.156

Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.