

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 45 V

Forward Current - 60 A

FEATURES

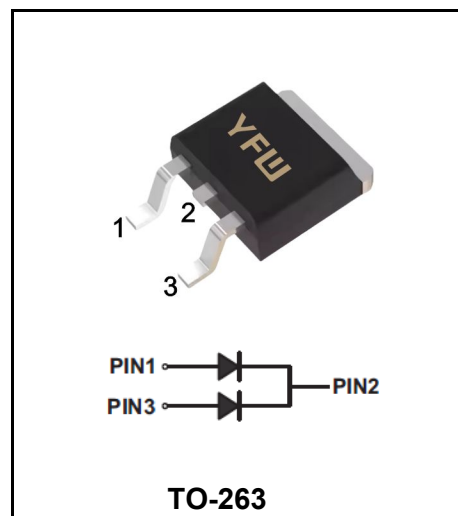
- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Construction utilizes void-free molded plastic technique
- ◆Low reverse leakage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed
260 °C/10 seconds at terminals

MECHANICAL DATA

- ◆Case: TO-263/DC
- ◆Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- ◆Polarity:Polaritysymbolmarkingonbody
- ◆MountingPosition:Any

Primary Characteristic

I_o	2*30A
V_{RRM}	45V
I_{FSM}	300A
V_F	0.60V
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}	45	V
Maximum RMS voltage		V_{RMS}	31.5	V
Maximum DC Blocking Voltage		V_{DC}	45	V
Maximum Average Forward Rectified Current (T _c =110 °C)	Per Leg	I_o	30	A
	Total		60	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave		I_{FSM}	300	A
Operating Temperature Range		T_J	-55~ +150	°C
Storage Temperature Range		T_{STG}	-55~ +150	°C
Typical Thermal Resistance		R_{θJC}	3.5	°C/W

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Value		Units
Forward Voltage Drop		V_F	Typ	Max	V
at I _F =30A	TA=25°C		0.65	-	
	TA=125°C		0.60	-	
Maximum Reverse Current at V _R =60V	TA=25°C	I_R	0.5	-	mA
	TA=125°C		50	-	mA

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

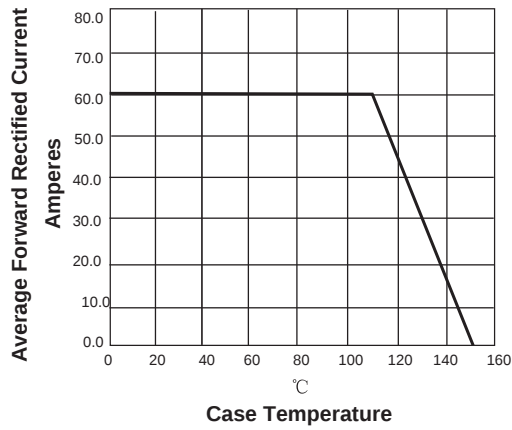


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

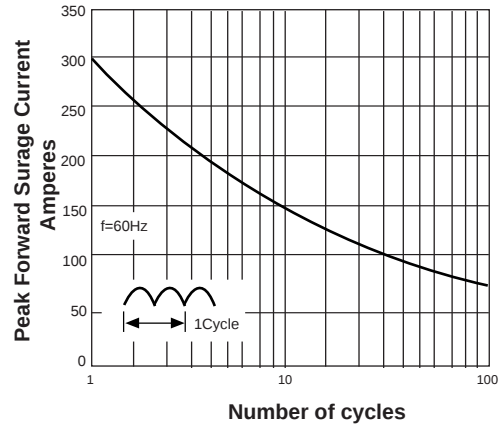


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

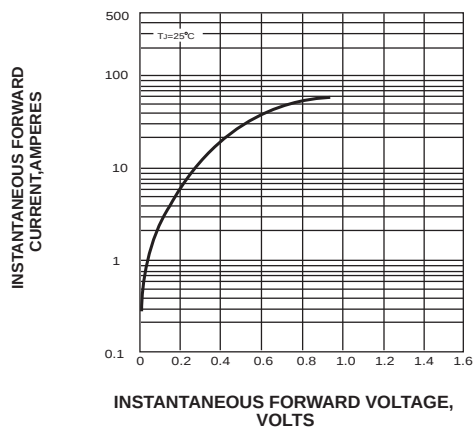
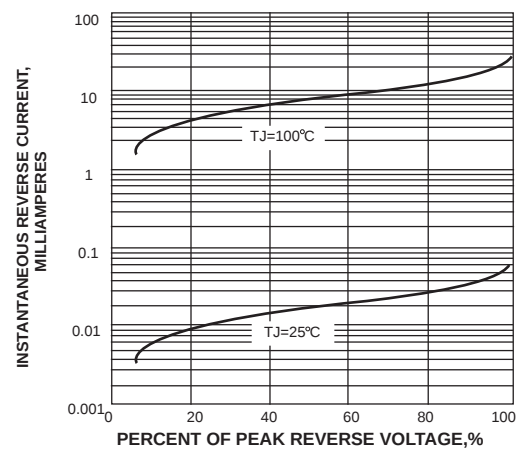
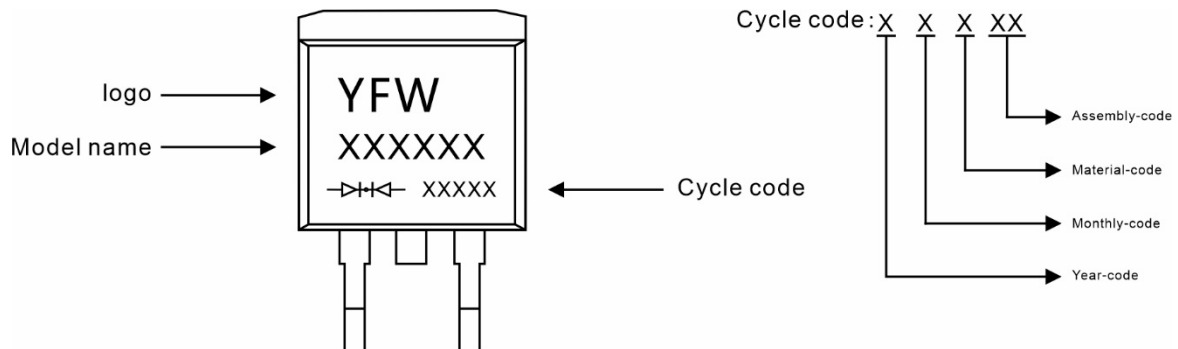


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MBR6045DC	TO-263	0.04oz(1.16g)	800pcs/reel	1600pcs/box 8000pcs/Carton

Package Dimensions TO-263

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.30	4.70	0.169	0.185
A1	0.00	0.15	0.000	0.006
A2	4.30	4.55	0.169	0.179
B	1.10	1.50	0.043	0.059
b	0.70	0.90	0.028	0.035
b1	1.20	1.50	0.047	0.059
c	0.30	0.60	0.012	0.024
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	9.50	0.335	0.374
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
L	15.20	15.80	0.598	0.622
L1	5.20	5.40	0.205	0.213
L2	2.40	2.60	0.094	0.102
L3	1.60	1.80	0.063	0.071

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