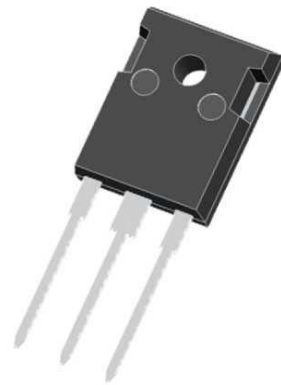


Schottky Diodes



1 2 3



Features

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package:** TO-247AB
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■Maximum Ratings (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR60F200PT-B1-W5094HF
Device marking code			MBR60F200PT
Repetitive peak reverse voltage	V _{RRM}	V	200
Average Rectified Forward Current (Rated VR-20KHz Square Wave) - 50% duty cycle, T _c (FIG 1)	I _{FAV}	A	60
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C	I _{FSM}	A	420
Current Squared Time @1ms≤t≤8.3ms T _j =25°C	I ² t	A ² s	732
Storage temperature	T _{STG}	°C	-55 ~+175
Junction temperature	T _J	°C	-55 ~+175

■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V _F	V	I _{FM} =30.0A T _j =25°C	-	0.86	0.95
			I _{FM} =30.0A T _j =125°C		0.75	0.82
DC reverse current at rated DC blocking voltage per diode,@ V _{RM} =V _{RRM}	I _{RRM}	mA	V _{RM} =V _{RRM} T _j =25°C	-	-	0.1
			V _{RM} =V _{RRM} T _j =125°C	-	-	20
Junction capacitance	C _j	pF	1MHZ and Applied Revers Voltage of 4.0 V.D.C.	300	490	700

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS



MBR60F200PT-B1-W5094HF

■ Thermal Characteristics (T_j=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MBR60F200PT-B1-W5094HF
Thermal Resistance	Between junction and ambient	R _{θJ-A}	°C/W	50.0
	Between junction and case	R _{θJ-C}	°C/W	1.0

■ Characteristics(Typical)

FIG1:I_o -T_c Curve

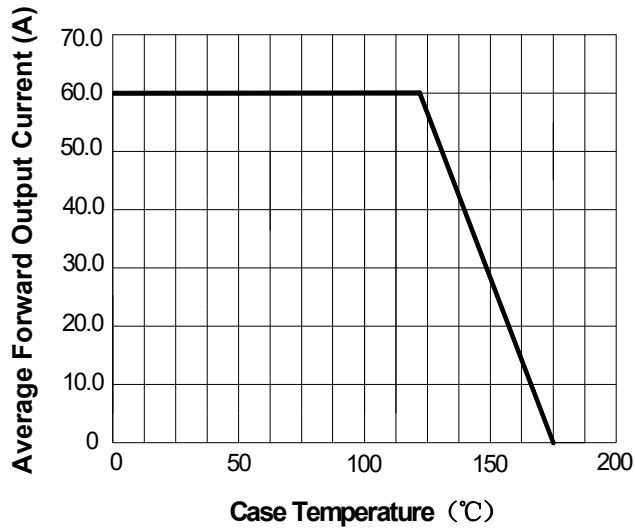


FIG2: Surge Forward Current Capability

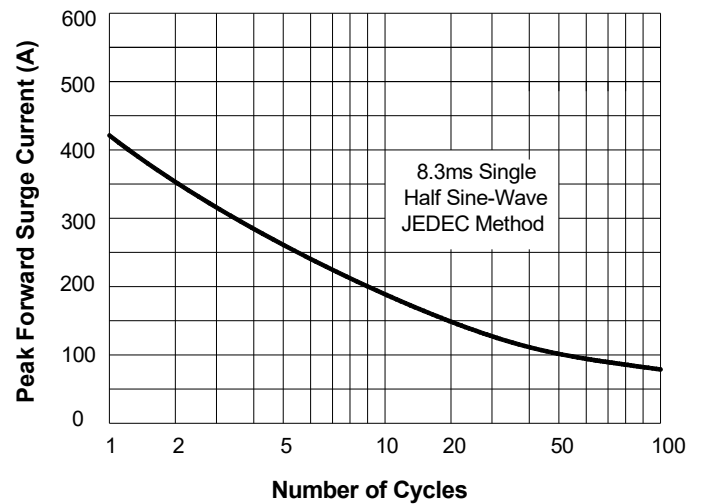


FIG3: Forward Voltage

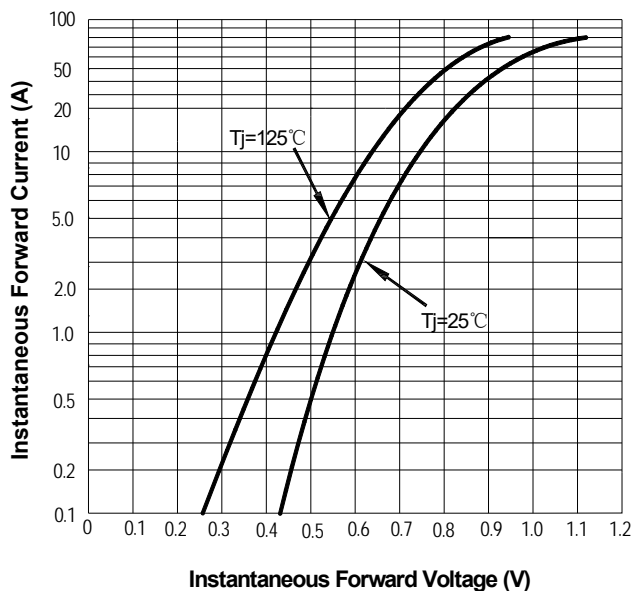
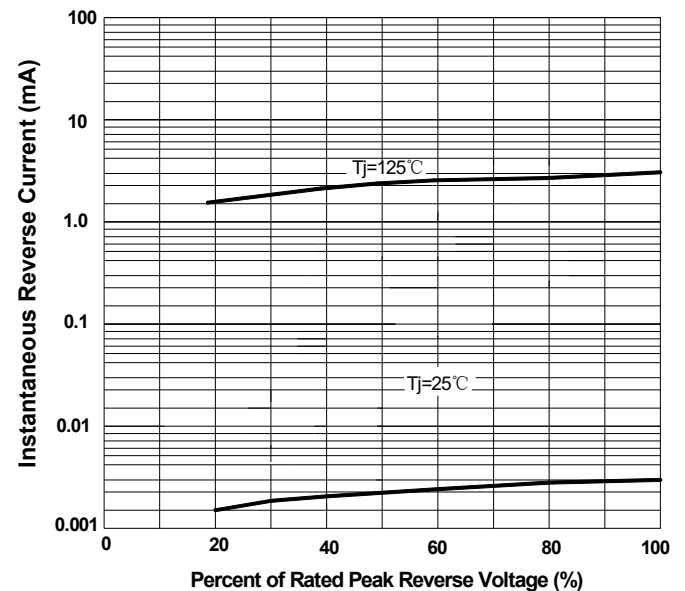


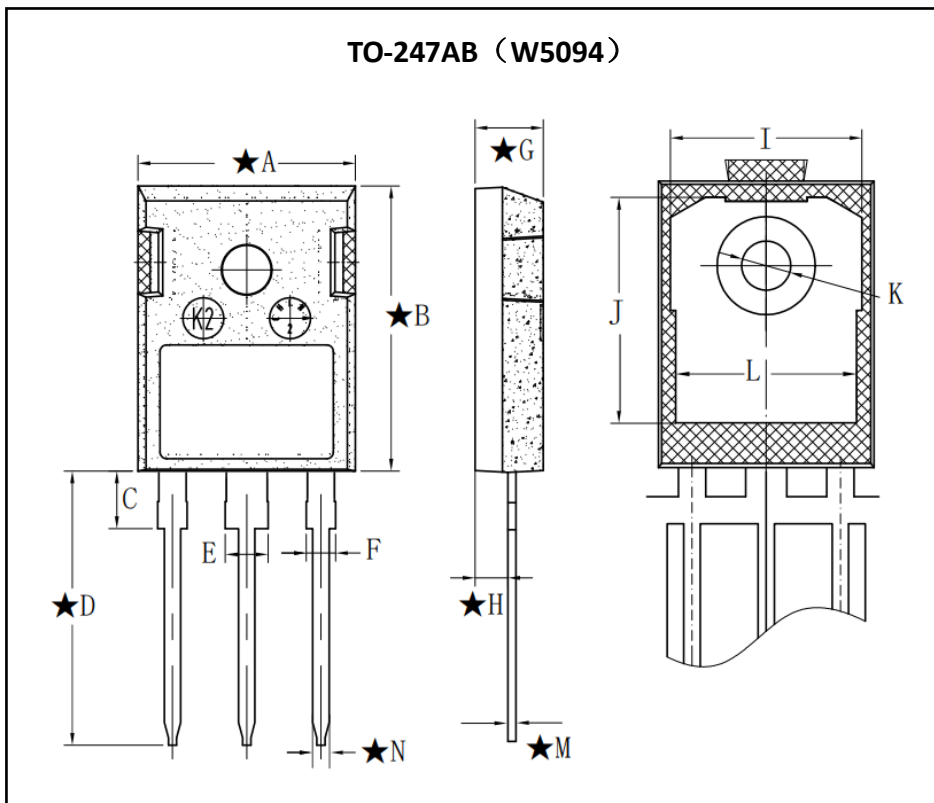
FIG4: Instantaneous Reverse Characteristics





MBR60F200PT-B1-W5094HF

■ Outline Dimensions



TO-247AB		
Dim	Min	Max
A	15.72	16.12
B	20.7	21.1
C	4.02	4.42
D	19.9	20.3
E	3.0	3.3
F	2.0	2.3
G	4.8	5.2
H	2.3	2.5
I	TYP 14.02	
J	TYP 16.55	
K	3.5	3.7
L	TYP 13.26	
M	0.58	0.62
N	1.15	1.25



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