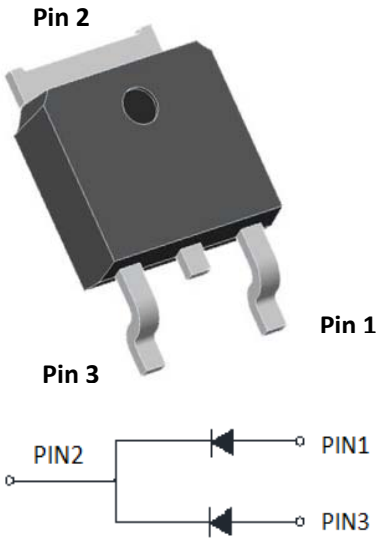


Schottky Diodes

Features

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

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

Mechanical Data

- **Package**: TO-252
  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 (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR20F100CDS-F1-W5094HF
Device marking code			MBR20F100CDS
Repetitive Peak Reverse Voltage	V_{RRM}	V	100
Average Rectified Output Current @60Hz sine wave, R-load, Tc(FIG.1)	I_O	A	20
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T_a=25℃	I_{FSM}	A	130
Current Squared Time @1ms≤t≤8.3ms Tj=25℃,	I^2t	A^2s	70
Storage Temperature	Tstg	℃	-55 ~ +175
Junction Temperature	Tj	℃	-55 ~ +175

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR20F100CDS-F1-W5094HF
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=10.0A	0.85
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	V_{RM}=V_{RRM} T_a=25℃	0.1
	I_{RRM2}		V_{RM}=V_{RRM} T_a=125℃	20

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

Note2:Pulse test:pulse widh 40mS

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	MBR20F100CDS-F1-W5094HF
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	℃/W	5.0

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR20F100CDS-F1-W5094HF	Approximate 0.32	2500	2500	25000	Reel

■Characteristics (Typical)

FIG1:Io -Tc Curve

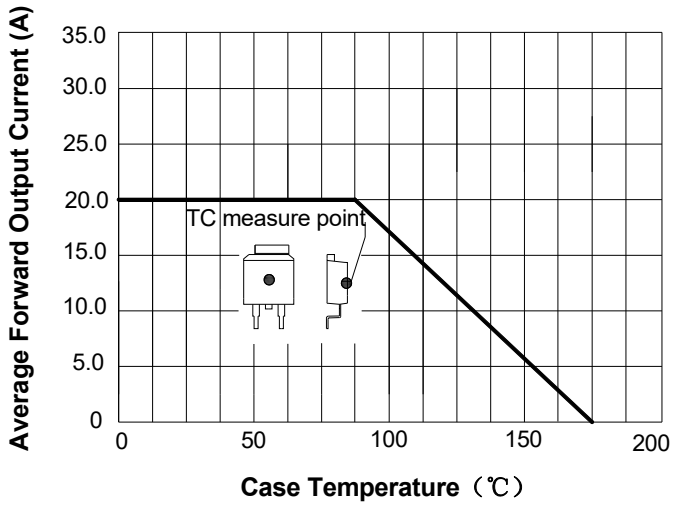


FIG2:Surge Forward Current Capability

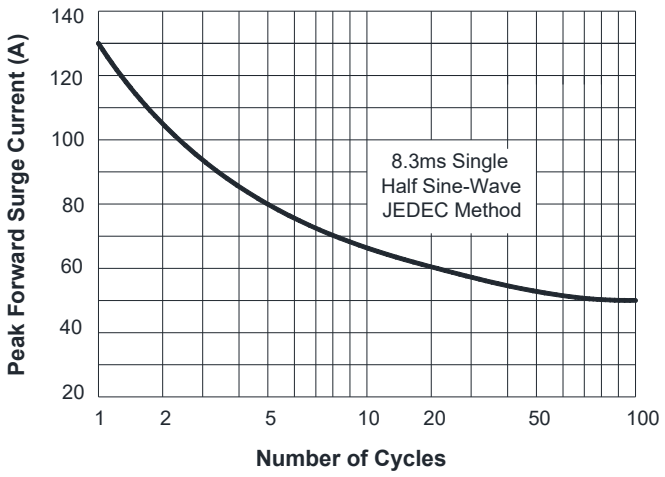


FIG3: Forward Voltage

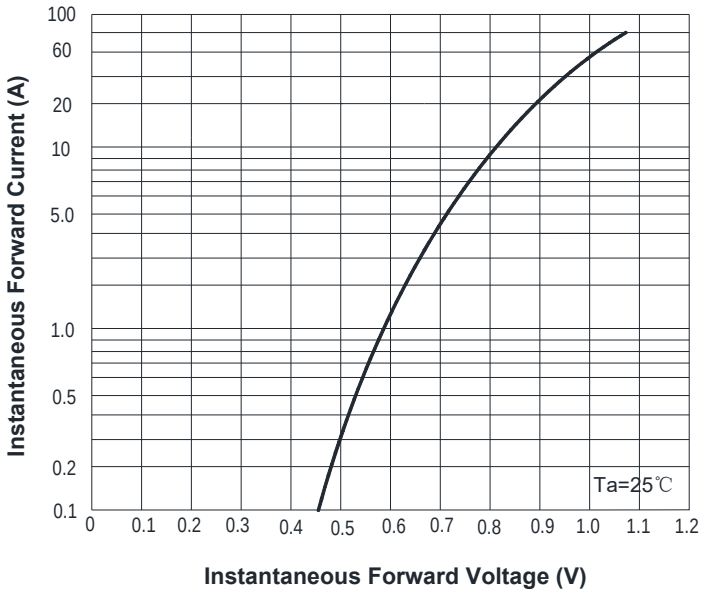
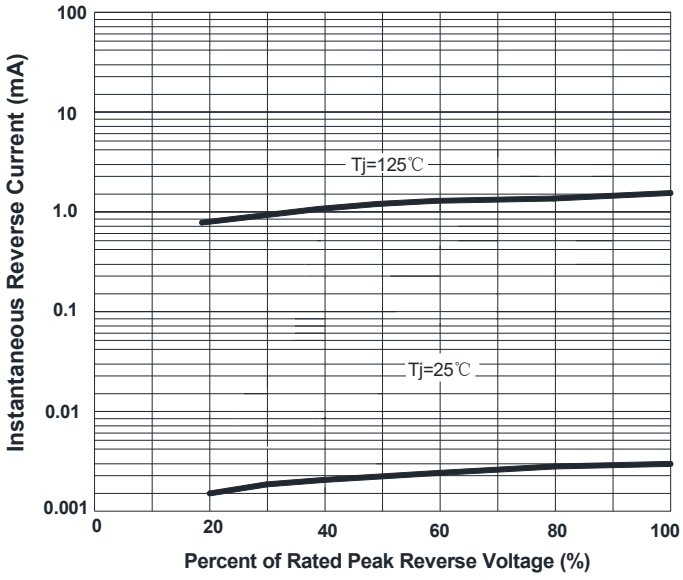
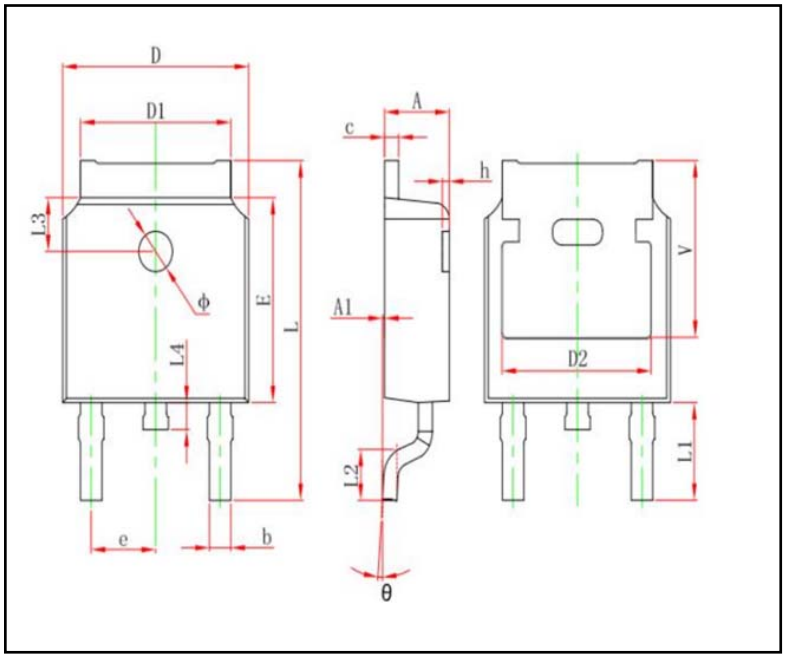


FIG.4: Instantaneous Reverse Characteristics



■Outline Dimensions



TO-252		
Dim	Min	Max
A	2.20	2.40
A1	0	0.15
b	0.66	0.86
C	0.46	0.58
D	6.50	6.70
D1	5.10	5.53
D2	4.70	4.90
E	6.00	6.20
e	2.186	2.386
L	9.80	10.43
L1	2.67	3.27
L2	1.40	1.70
L3	1.50	1.70
L4	0.60	1.05
Φ	1.10	1.30
θ	0°	8°
h	0	0.30
V	5.20	5.40

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