

Schottky Diodes

Features

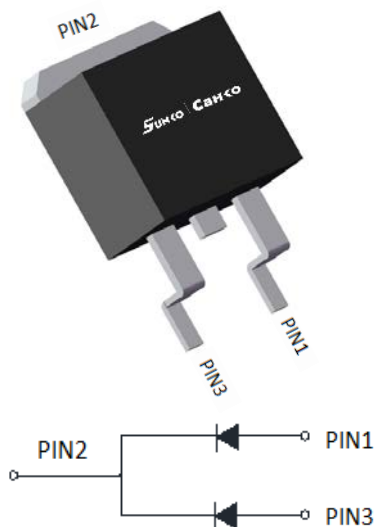
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Typical Applications

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

Mechanical Data

- **Package:** TO-263
Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked



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

PARAMETER	SYMBOL	UNIT	MBRB2060CTS
Device marking code			MBRB2060CTS
Repetitive Peak Reverse Voltage	VRRM	V	60
Average Rectified Output Current @60Hz sine wave, R-load, T _c =120°C	I _O	A	20
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C	I _{FSM}	A	130
Current Squared Time @1ms≤t≤8.3ms T _j =25°C	I ² t	A ² s	70
Storage Temperature	T _{stg}	°C	-55 ~ +150
Junction Temperature	T _j	°C	-55 ~ +150

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBRB2060CTS
Maximum instantaneous forward voltage drop per diode	VFM	V	I _{FM} =10.0A	0.75
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	V _{RM} =V _{RRM} T _a =25°C	0.2
	I _{RRM2}		V _{RM} =V _{RRM} T _a =100°C	20

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

Note2:Pulse test:pulse width 40mS

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

PARAMETER		SYMBOL	UNIT	MBRB2060CTS
Thermal Resistance	Between junction and case	R _{θJ-C}	°CW	2.0

■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBRB2060CTS-F2-W5038HF	Approximate 1.43	800	1600	8000	Reel

■ Characteristics (Typical)

FIG1: I_o -T_c Curve

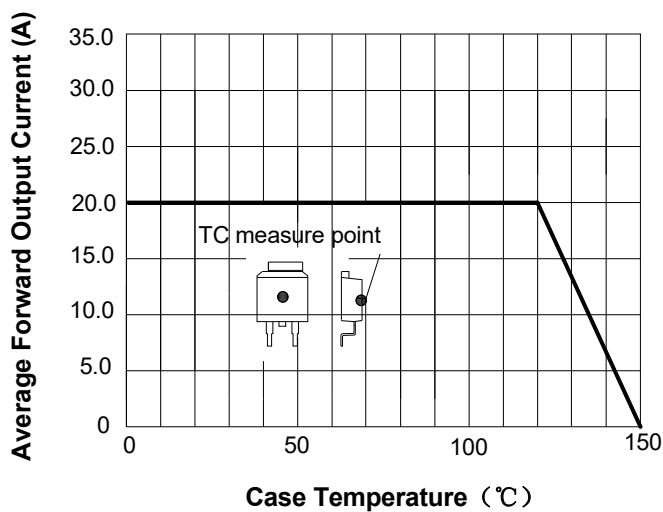


FIG2: Surge Forward Current Capability

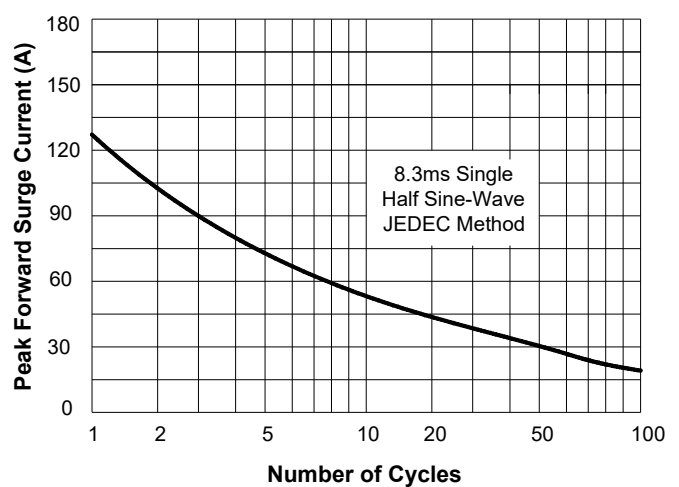


FIG3: Forward Voltage

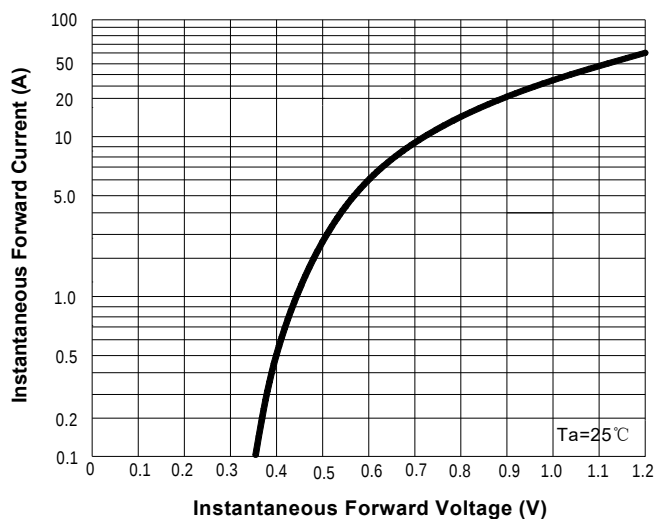
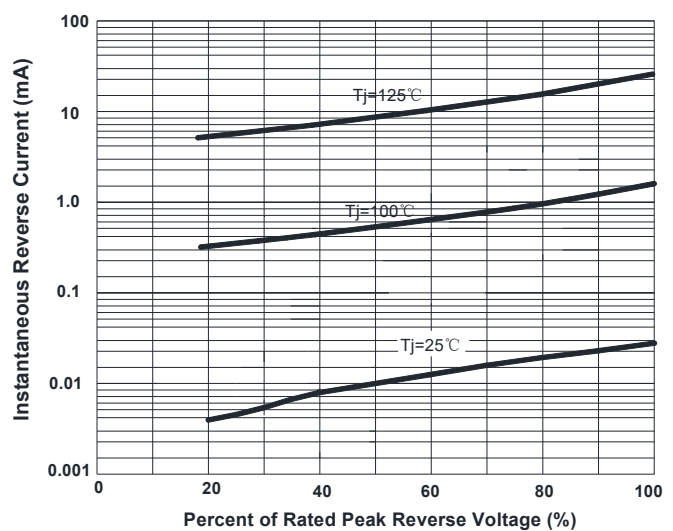
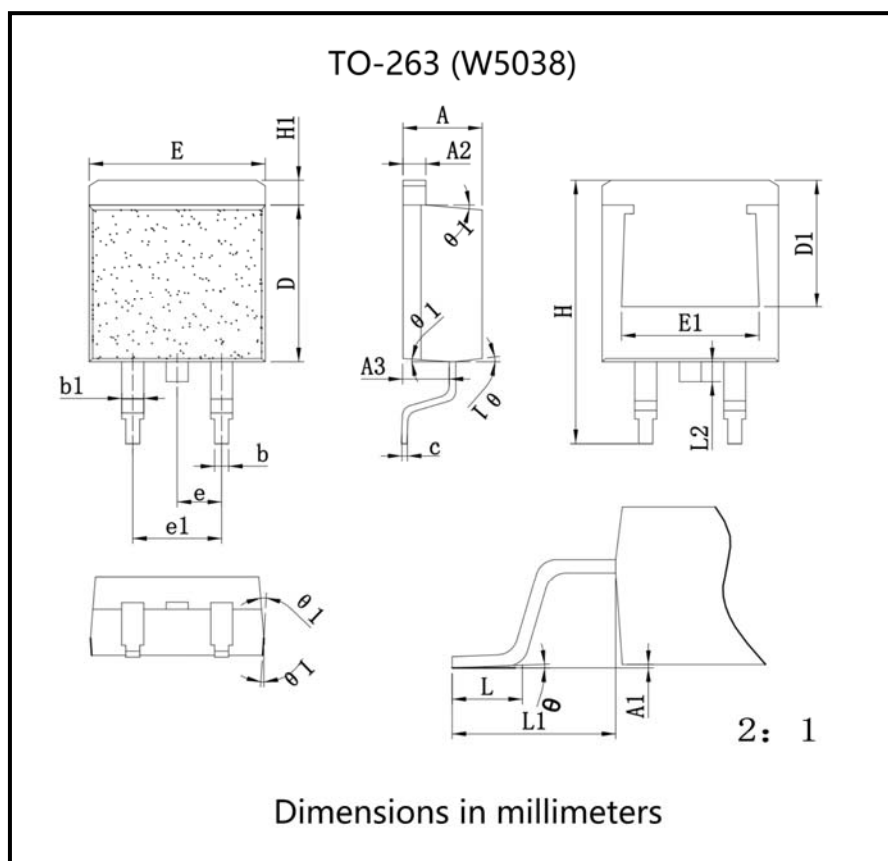


FIG4: Typical Reverse Characteristics

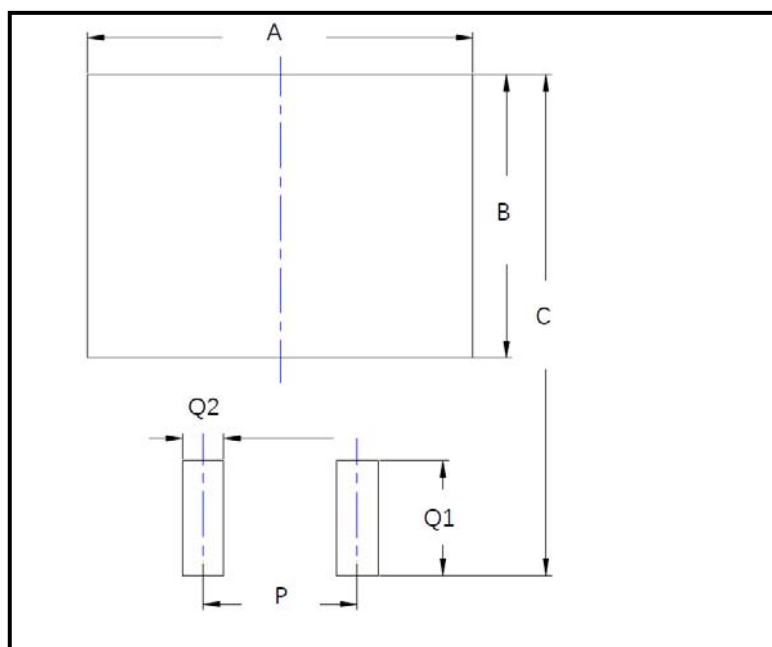


■Outline Dimensions



TO-263		
Dim	Min	Max
*A	4.42	4.62
*A1	0.00	0.20
*A2	1.24	1.32
*A3	2.50	2.70
*b	0.75	0.85
*b1	1.20	1.30
*c	0.33	0.43
*D	8.88	9.12
D1	7.25 REF	
*E	9.92	10.22
E1	7.85	8.15
*e	2.50	2.58
e1	5.08 REF	
*H	14.80	15.30
*H1	1.12	1.42
*L	2.10	2.36
L1	4.55	4.95
L2	1.10	1.50
*θ	0°	5°
θ1	3°	9°

■Suggested Pad Layout



Dim	Millimeters
A	12.7
B	9.4
C	16.6
P	5.08
Q1	3.8
Q2	1.35

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