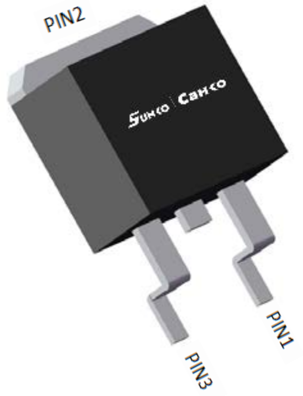
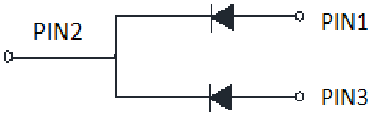
MBRBL2045CT

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℃

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 (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	MBRBL2045CT
Device marking code			MBRBL2045CT
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz sine wave, R-load, Ta（FIG 1）	I_O	A	20
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25℃	I_{FSM}	A	180
Current Squared Time @1ms≤t≤8.3ms Tj=25℃， rating of per diode	I^2t	A^2s	134
Storage Temperature	T_{stg}	℃	-55 ~ +150
Junction Temperature	Tj	℃	-55 ~ +150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBRBL2045CT
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=10.0A	0.55
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	$V_{RM}=V_{RRM}$ Ta=25℃	0.2
	I_{RRM2}		$V_{RM}=V_{RRM}$ Ta=100℃	50

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

PARAMETER		SYMBOL	UNIT	MBRBL2045CT
Thermal Resistance	Between junction and case	$R_{\theta J\text{-}C}$	℃/W	2.0

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBRBL2045CT	Approximate 1.43	50	2000	8000	Tube
MBRBL2045CT	Approximate 1.43	1000	2000	10000	Reel

■Characteristics (Typical)

FIG1:Io -Tc Curve

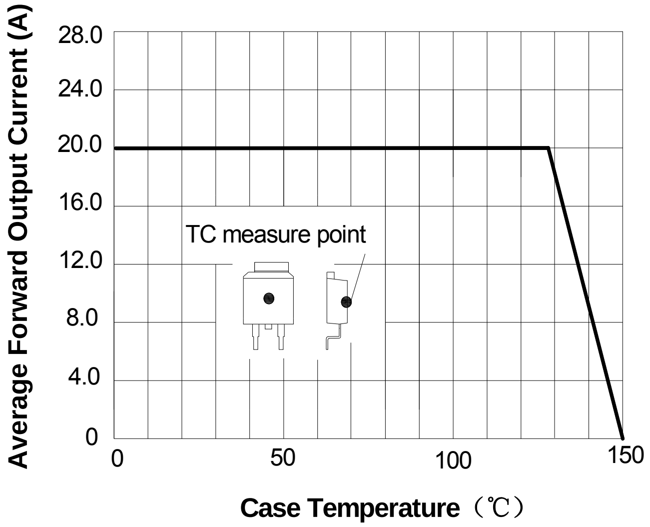


FIG2:Surge Forward Current Capability

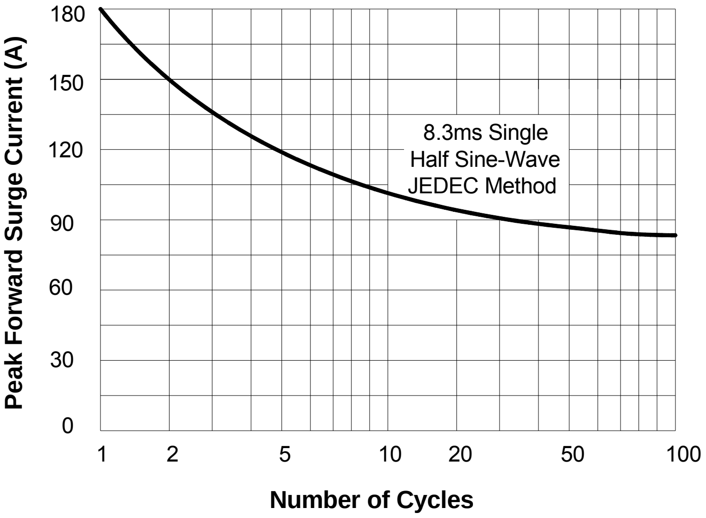


FIG3: Forward Voltage

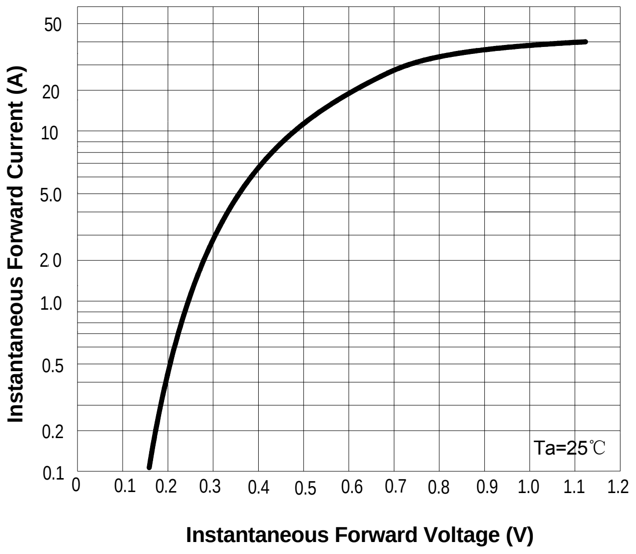
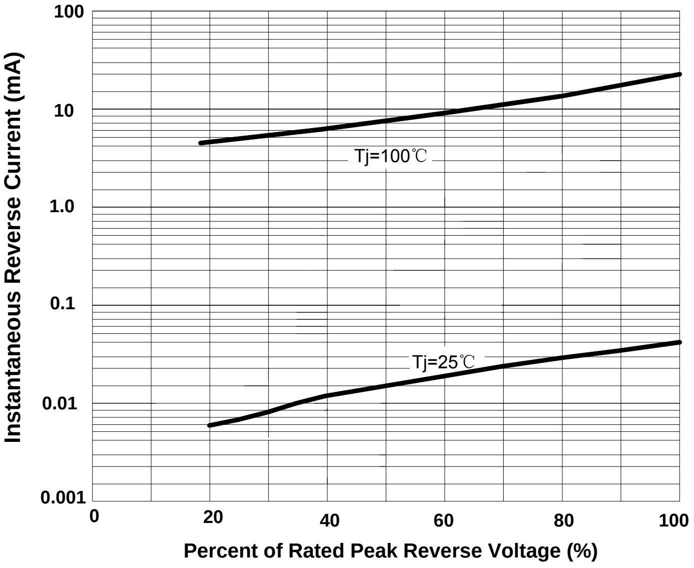
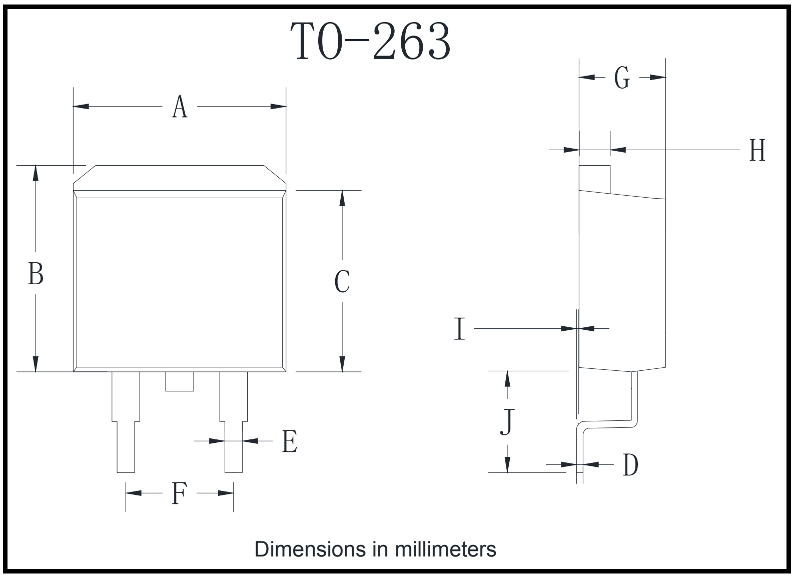


FIG.4: Typical Reverse Characteristics



■Outline Dimensions



Dimensions in millimeters

TO-263		
Dim	Min	Max
A	9.5	11.5
B	9.7	10.5
C	8.4	9.0
D	0.28	0.64
E	0.68	0.94
F	4.55	5.6
G	4.04	5.10
H	1.14	1.4
I	0	0.2
J	4.9	6.05

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