FEATURES

- Trench Schottky technology
- Lower forward voltage
- Lower power loss,high efficiency
- Softest, fast switching capability
- High surge capability
- Lead Free Finish,ROHS Compliant

TYPICAL APPLICATIONS

For use in high frequency rectifier of switching mode power supplies, freewheeling diodes, DC/DC converters or polarity protection application

PRIMIARY CHARACTERISTICS	
$IF_{(AV)}$	3A
V_{RRM}	100V
I_{FSM}	65A
VF	0.57V
$T_{J\,max.}$	150℃

SMA

TBR3100SA

Cathode ○—◀—○ Anode

SMB

TBR3100SB

Cathode ○—◀—○ Anode

Maximum ratings and electrical characteristics

(T_A = 25 °C unless otherwise noted)

Parameter	Description	Test Condition		Min.	Typ.	Max.	Unit
V_{RRM}	Maximum repetitive peak reverse voltage	I_R =500μA		108	113	—	V
$IF_{(AV)}$	Maximum average forward rectified current			—	—	5	A
I_{FSM}	Maximum Peak forward surge current	1/2 60hz		—	—	65	A
V_F	Static Forward Voltage	I_F = 1A	T_A=25℃	—	0.44	0.48	V
		I_F = 3A		—	0.57	0.65	V
		I_F = 1A	T_A=125℃	—	0.37	0.47	V
		I_F = 3A		—	0.51	0.61	V
I_R	Maximum reverse current per diode at working peak reverse voltage	V_R =100V	T_A=25℃	—	13	30	μA
			T_A=125℃	—	6.5	30	mA
	Typical Thermal Resistance	SMA		4			℃/W
		SMB		15			
T_J, T_{STG}	Operating and Storage Temperature Range	-55℃ to 150℃ Max					

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

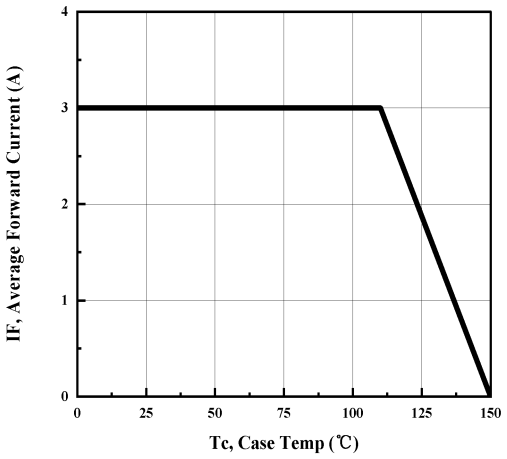


Fig. 1: Forward Current Derating Curve

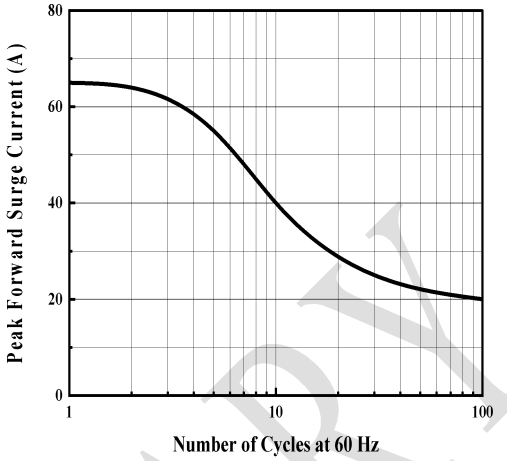


Fig. 2: Maximum Repetitive Surge Current

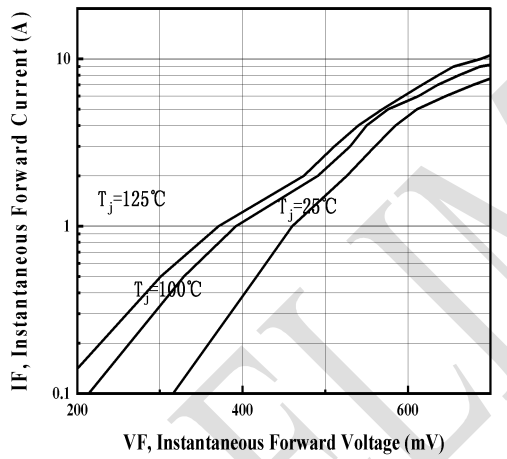


Fig. 3: Typical Forward Voltage

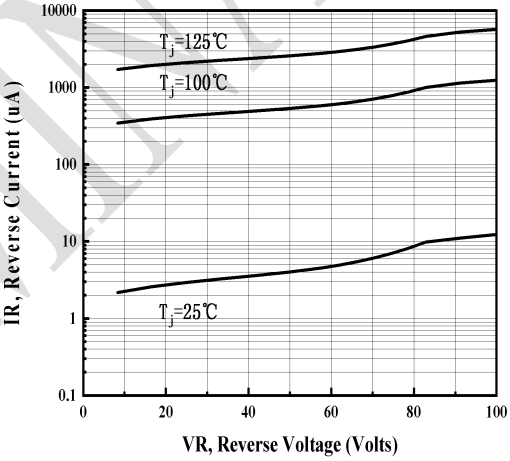


Fig. 4: Typical Reverse Current

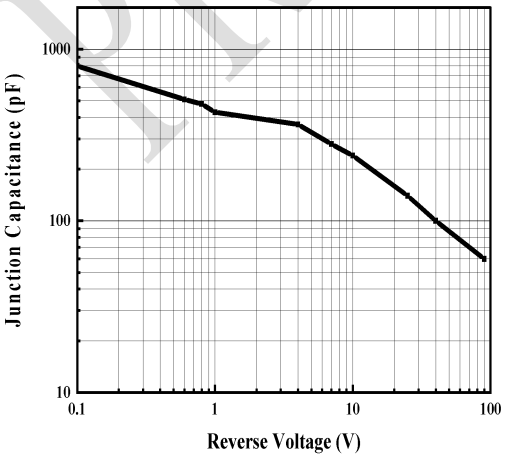
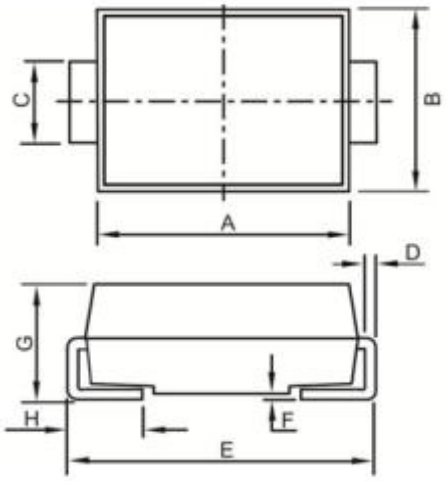


Fig. 5: Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in millimeters



SMA (TBR3100SA)		
Dim	**Min**	**Max**
A	**4.00**	**4.60**
B	**2.50**	**2.90**
C	**1.20**	**1.60**
D	**0.152**	**0.305**
E	**4.80**	**5.28**
F	**0.051**	**0.203**
G	**2.00**	**2.44**
H	**0.76**	**1.52**

SMB (TBR3100SB)		
Dim	**Min**	**Max**
A	**4.25**	**4.70**
B	**3.40**	**3.80**
C	**1.70**	**2.30**
D	**0.152**	**0.305**
E	**5.10**	**5.70**
F	**0.00**	**0.30**
G	**2.15**	**2.45**
H	**0.80**	**1.40**

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