

### SCHOTTKY BARRIER DIODE

#### ■ Features

- Low VF
- Super high speed switching.
- High reliability by planer design.

#### ■ Applications

- High speed power switching.

#### ■ Maximum Ratings and Characteristics

- Absolute Maximum Ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	$V_{RRM}$		20	V
Repetitive peak surge reverse voltage	$V_{RSM}$	$t_w=500\text{ns}$ , duty=1/40	20	V
Isolating voltage	$V_{iso}$	Terminals to Case, AC. 1min.	1500	V
Average output current	$I_o$	duty=1/2, $T_c=94^\circ\text{C}$ Square wave	16*	A
Surge current	$I_{FSM}$	Sine wave 10ms	120	A
Operating junction temperature	$T_j$		+150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +150	$^\circ\text{C}$

\* Out put current of centertap full wave connection.

- Electrical Characteristics ( $T_a=25^\circ\text{C}$  Unless otherwise specified )

Item	Symbol	Conditions	Max.	Unit
Forward voltage drop **	$V_F$	$I_F=4.0\text{A}$	0.39	V
Reverse current **	$I_R$	$V_R=V_{RRM}$	10.0	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	3.5	$^\circ\text{C}/\text{W}$

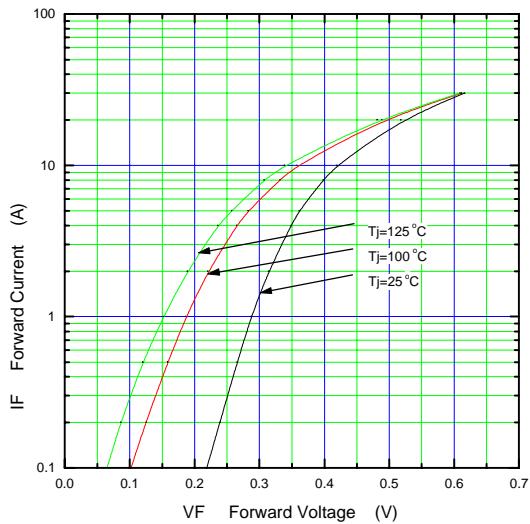
\*\* Rating per element

- Mechanical Characteristics

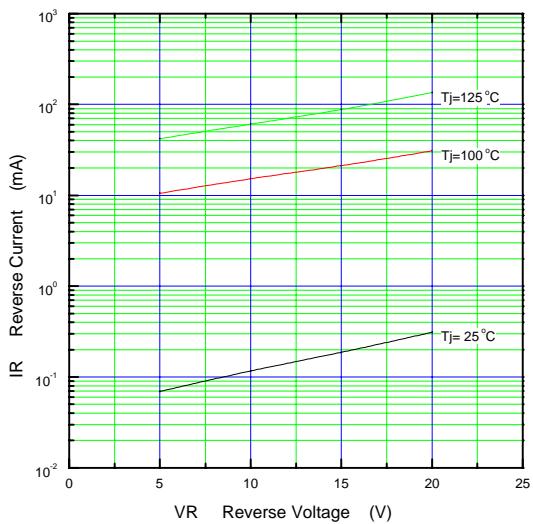
Mounting torque	Recommended torque	0.3 to 0.5	$\text{N} \cdot \text{m}$
Weight		2.3	g

## ■ Characteristics

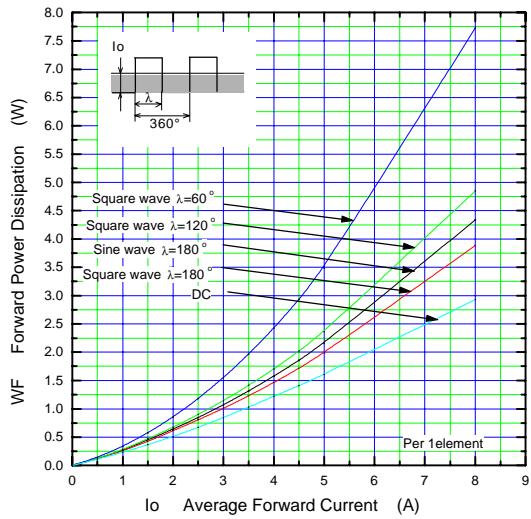
Forward Characteristic (typ.)



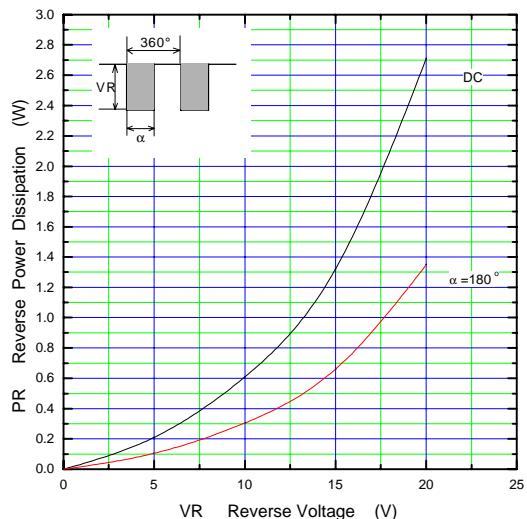
Reverse Characteristic (typ.)



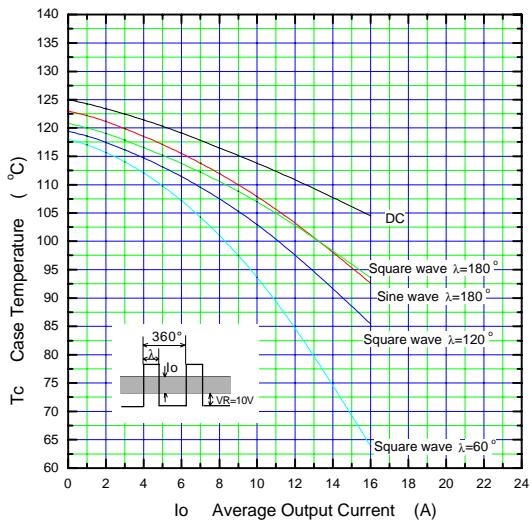
Forward Power Dissipation



Reverse Power Dissipation



Current Derating (Io-Tc)



$\lambda$ : Conduction angle of forward current for each rectifier element  
 $Io$ : Output current of center-tap full wave connection

Junction Capacitance Characteristic (typ.)

