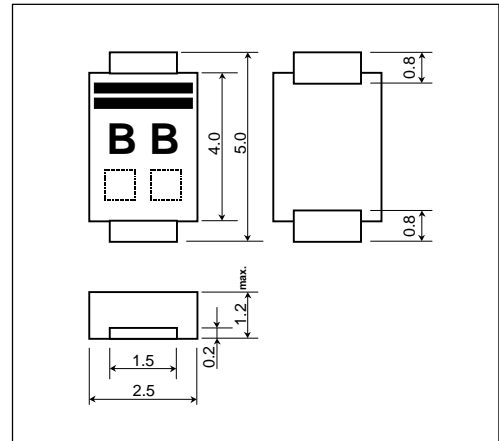


# SD833-04

(40V / 3.0A)

## SCHOTTKY BARRIER DIODE

### Outline drawings, mm



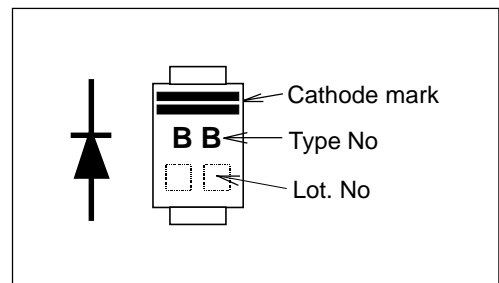
### Features

- Surface-mount device
- Low  $V_F$
- Super high speed switching
- High reliability by planer design

### Applications

- High speed switching

### Marking



### Maximum ratings and characteristics

- Absolute maximum ratings

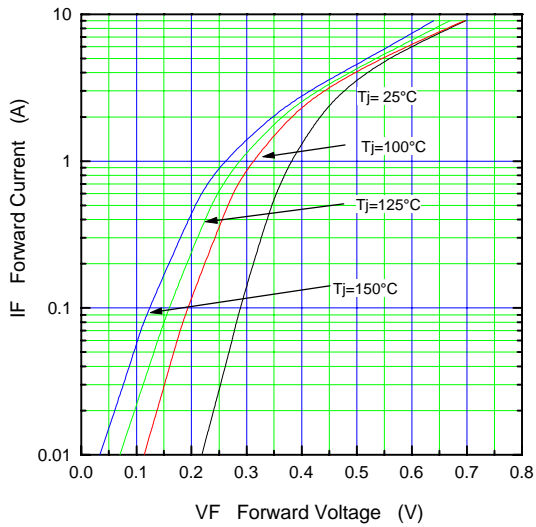
Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	$V_{RRM}$		40	V
Non-repetitive peak reverse voltage	$V_{RSM}$	$t_w=500\text{ns}$ , $\text{duty}=1/40$	40	V
Average output current	$I_o$	square wave $\text{duty}=1/2$ $T_I=122^\circ\text{C}$	3.0	A
Surge current	$I_{FSM}$	Sine wave 10ms, 1shot	70	A
Operating junction temperature	$T_j$		-40 to +150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +150	$^\circ\text{C}$

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

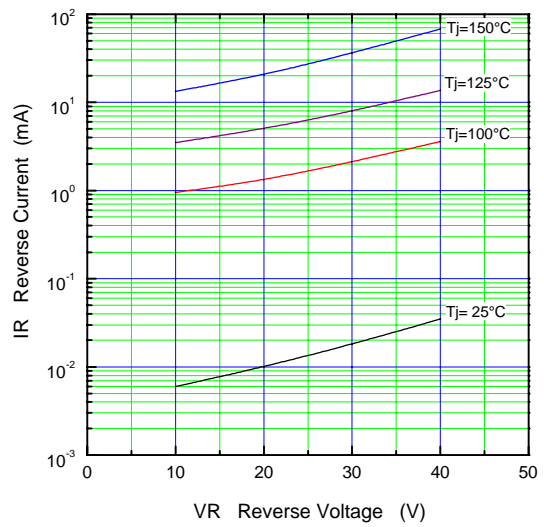
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	$V_{FM}$	$I_{FM}=3.0\text{A}$	0.51	V
Reverse current	$I_{RRM}$	$V_R=V_{RRM}$	1.0	mA
Thermal resistance	$R_{th(j-l)}$	Junction to lead	12	$^\circ\text{C}/\text{W}$

Characteristics

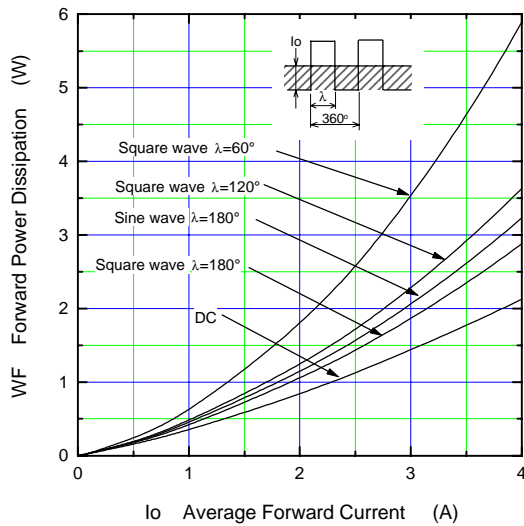
Forward Characteristic (typ.)



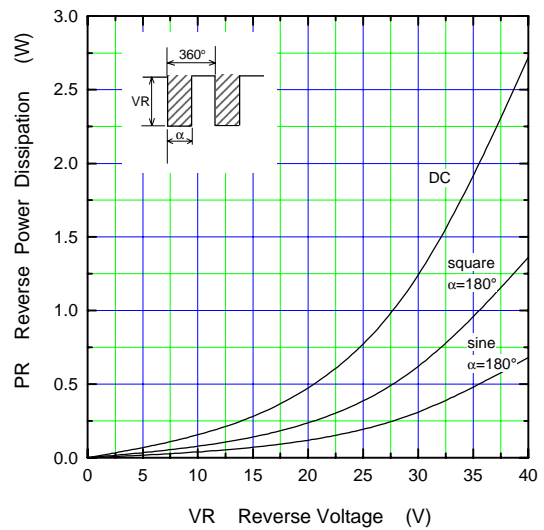
Reverse Characteristic (typ.)



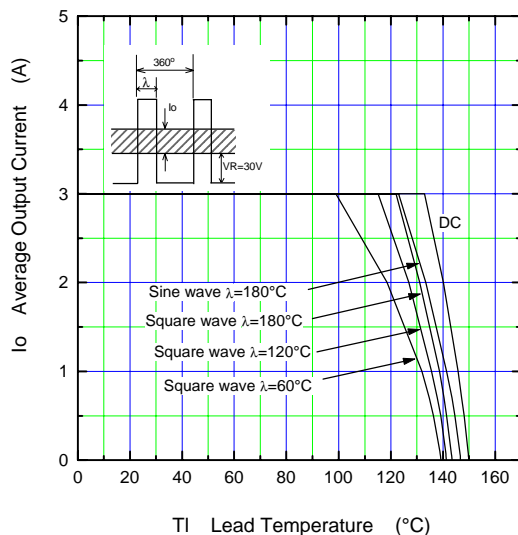
Forward Power Dissipation



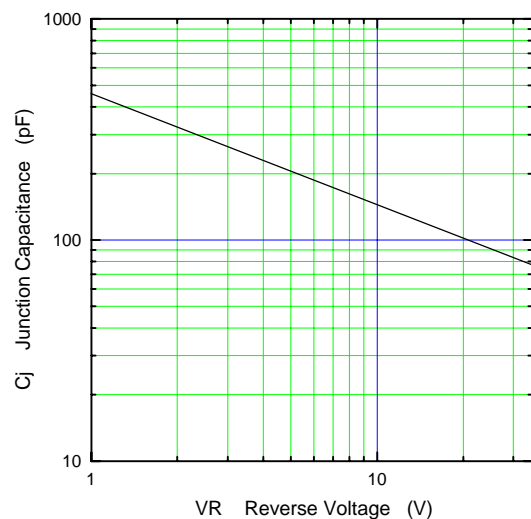
Reverse Power Dissipation



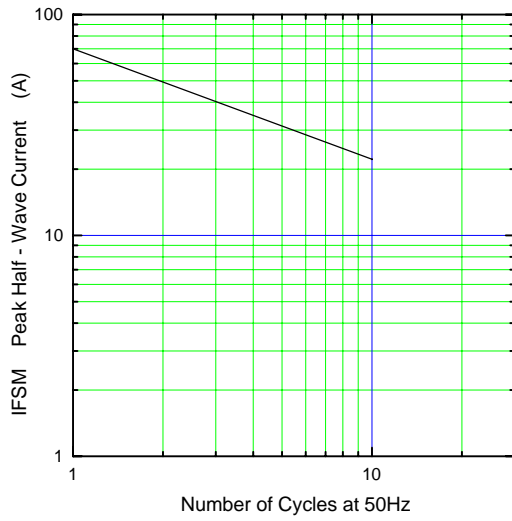
Current Derating ( $I_o$ - $T_I$ )



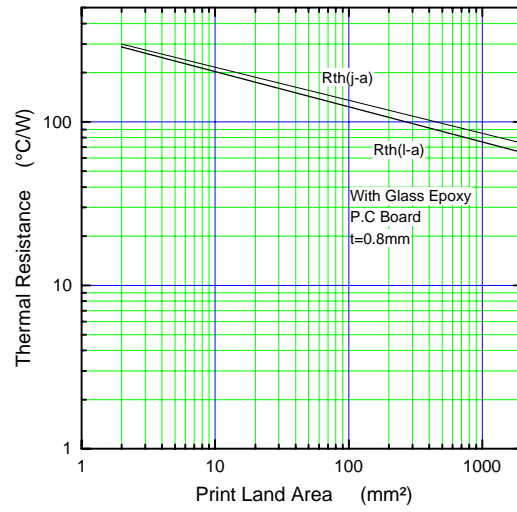
Junction Capacitance Characteristic (typ.)



Surge Capability



Thermal Resistance Print Land



Transient Thermal Impedance

