

SD833-09 (3A)

(90V / 3A)

Schottky barrier diode

Major characteristics

Characteristics	SD833-09	Units	Condition
V_{RRM}	90	V	
V_F	0.66	V	$T_j=125^{\circ}\text{C}$, typ
I_o	3	A	

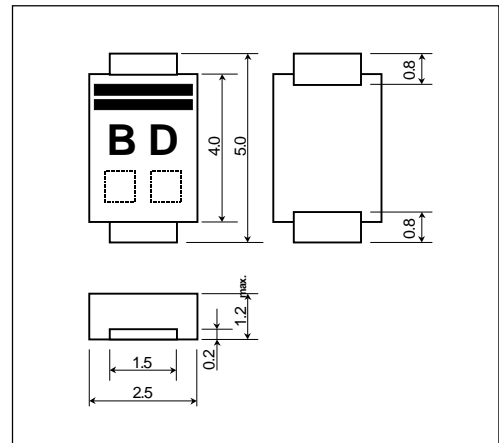
Features

- Low V_F
- High voltage 60V
- Low height : 1.2mm max.
- Small mounting area
- Good heat radiation characteristic

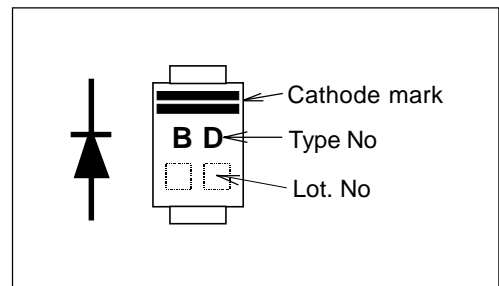
Applications

- High frequency operation
- DC-DC converters
- AC adapter
- Reverse battery protection
- Oring diode for redundant power system

Outline drawings, mm



Marking



Maximum ratings and characteristics

- Absolute maximum ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak surge reverse voltage	V_{RSM}	$t_w=500\text{ns}$, $\text{duty}=1/40$	100	V
Repetitive peak reverse voltage	V_{RRM}		90	V
Average output current	I_o	Square wave, $\text{duty}=1/2$ $T_l=112^{\circ}\text{C}$	3	A
Non-repetitive surge current	I_{FSM}	Sine wave 10ms, 1shot	60	A
Operating junction temperature	T_j		+150	$^{\circ}\text{C}$
Storage temperature	T_{stg}		-40 to +150	$^{\circ}\text{C}$

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

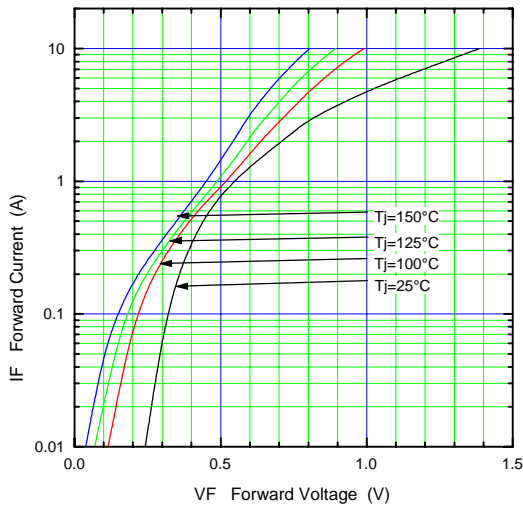
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_F	$I_{FM}=3.0\text{A}$	0.85	V
Reverse current	I_R	$V_R=V_{RRM}$	1.0	mA

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

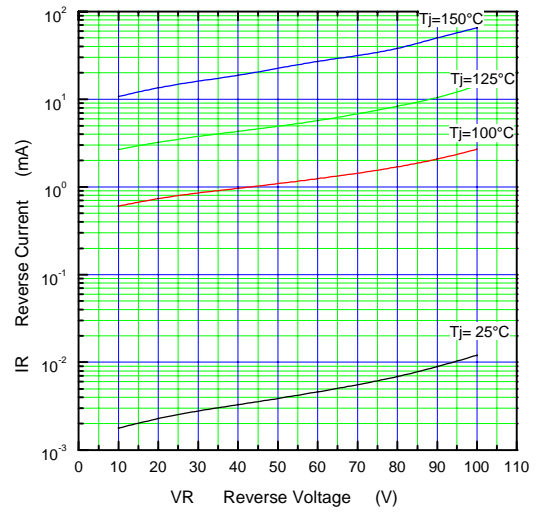
Item	Symbol	Condition	Max.	Unit
Thermal resistance	$R_{th(j-c)}$	Junction to case	12.0	$^{\circ}\text{C}/\text{W}$

Characteristics

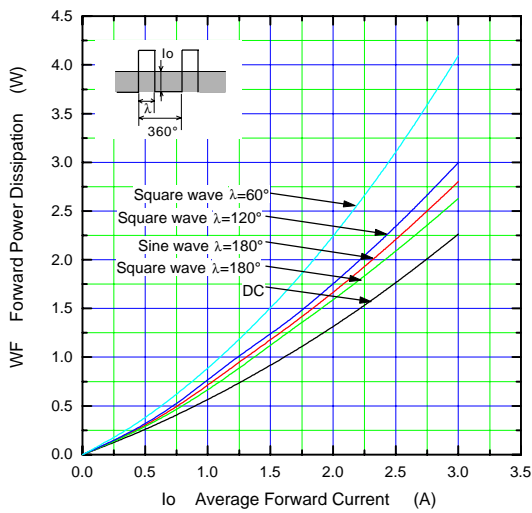
Forward Characteristic (typ.)



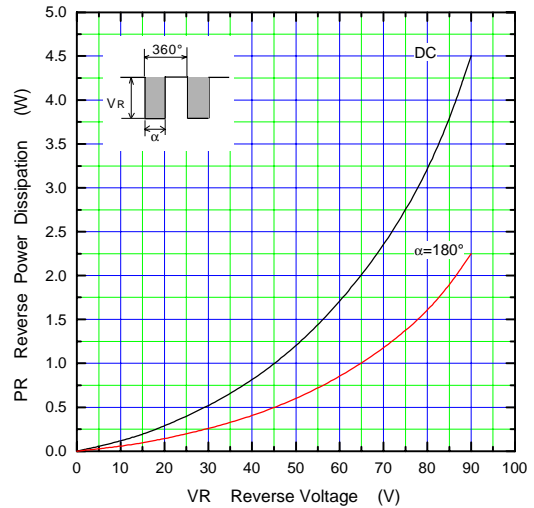
Reverse Characteristic (typ.)



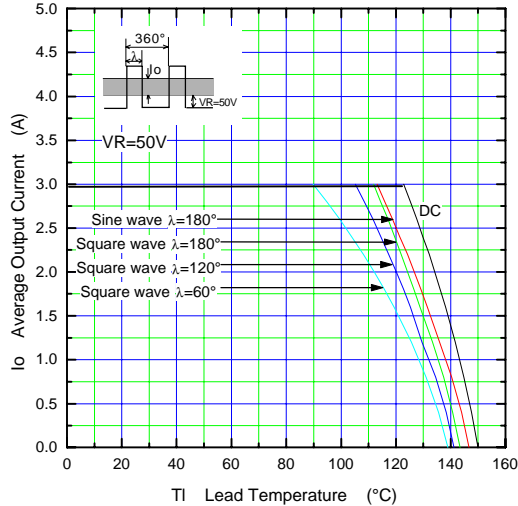
Forward Power Dissipation



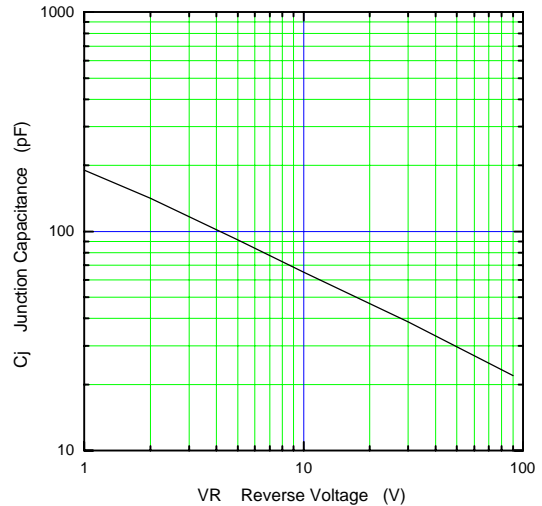
Reverse Power Dissipation



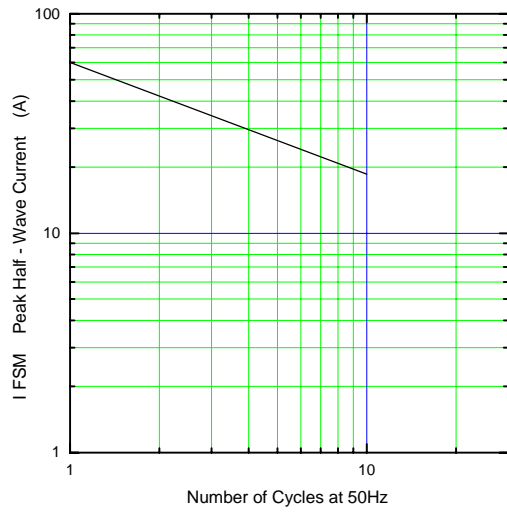
Current Derating (Io-TI)



Junction Capacitance Characteristic (typ.)



Surge Capability



Thermal Resistance Print Land

