

# Rectifier diode

## 1SR159-200

### ●Applications

High frequency rectification.  
For switching power supply.

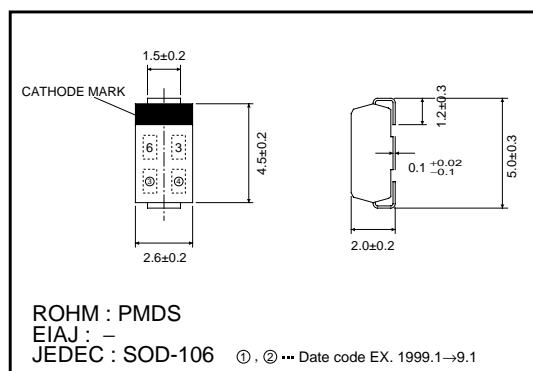
### ●Features

- 1) Small surface mounting type. (PMDS)
- 2) Low  $V_F$ . ( $V_F=0.90V$  Typ. at 1A)
- 3) High speed. ( $t_r=23ns$  Typ.)

### ●Construction

Silicon epitaxial planar

### ●External dimensions (Units: mm)



### ●Absolute maximum ratings ( $T_a=25^\circ C$ )

Parameter	Symbol	Limits	Unit
Absolute peak reverse voltage	$V_{RSM}$	200	V
Peak reverse voltage	$V_{RM}$	200	V
Mean rectifying current*1	$I_o$	1	A
Peak forward surge current*2	$I_{FSM}$	20	A
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55~+150	$^\circ C$

\*1 When mounted on an alumina PCB board \*2 60 Hz for 1  $\mu s$

### ●Electrical characteristics ( $T_a=25^\circ C$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	0.98	V	$I_F=1.0A$
Reverse current	$I_R$	-	-	10	$\mu A$	$V_R=200V$
Reverse recovery time	$t_r$	-	-	50	ns	$I_F=I_R=100mA$

Diodes

● Electrical characteristic curves (Ta=25°C)

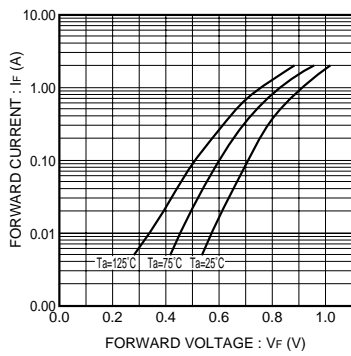


Fig.1 Forward characteristics

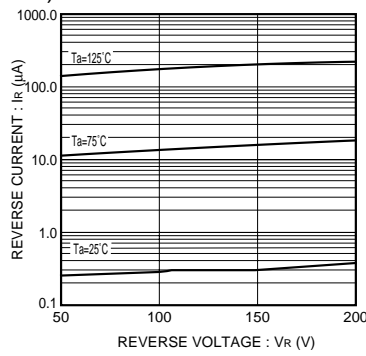


Fig.2 Reverse characteristics

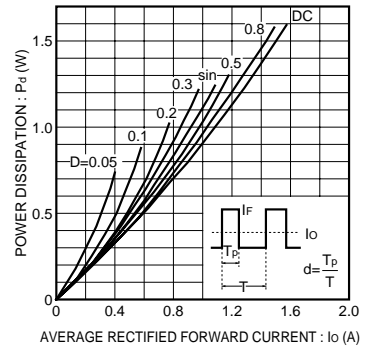


Fig.3 Power dissipation curves

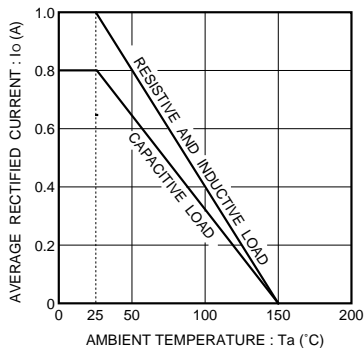


Fig.4 Derating curve

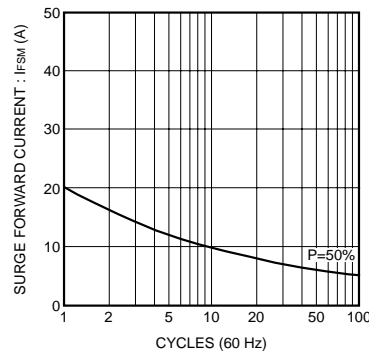


Fig.5 Maximum peak forward surge current characteristics

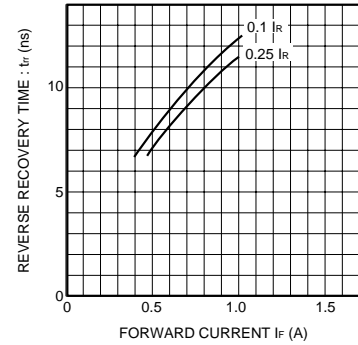


Fig.6 Reverse recovery time characteristics