

Rectifier diode

1SR159-200

●Applications

High frequency rectification.
For switching power supply.

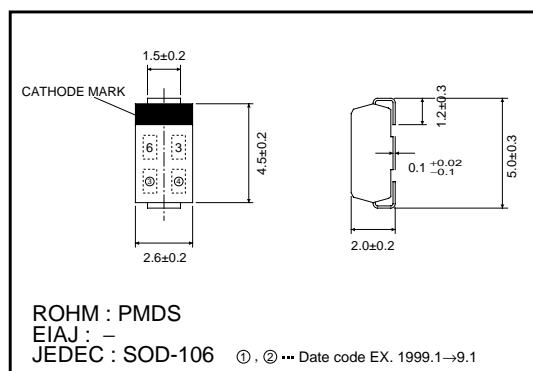
●Features

- 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 μs

●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	μA	$V_R=200V$
Reverse recovery time	t_r	-	-	50	ns	$I_F=I_R=100mA$

Diodes

● Electrical characteristic curves (Ta=25°C)

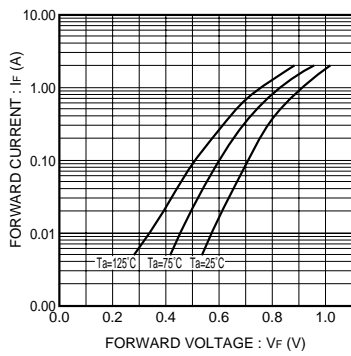


Fig.1 Forward characteristics

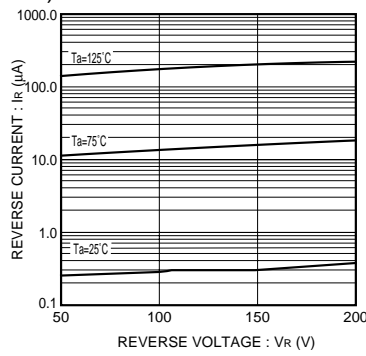


Fig.2 Reverse characteristics

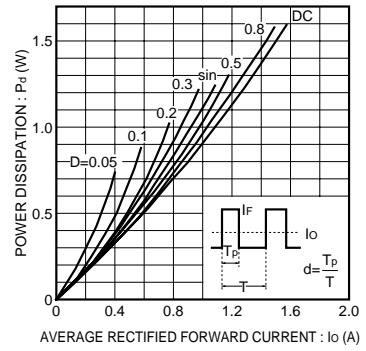


Fig.3 Power dissipation curves

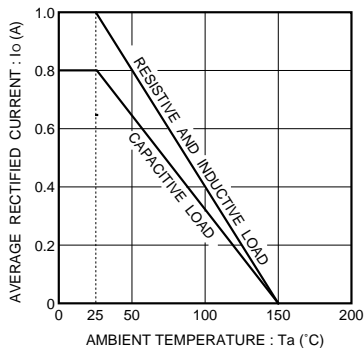


Fig.4 Derating curve

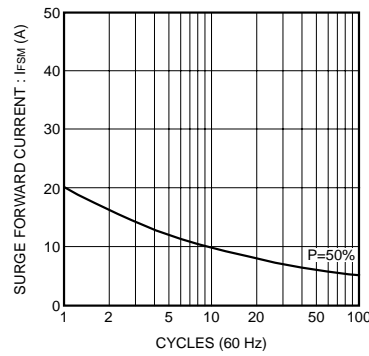


Fig.5 Maximum peak forward surge current characteristics

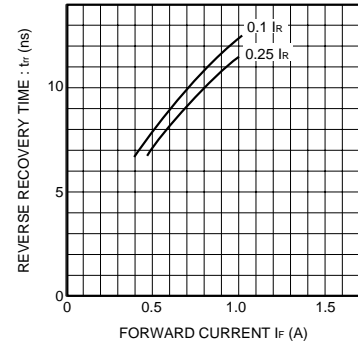


Fig.6 Reverse recovery time characteristics