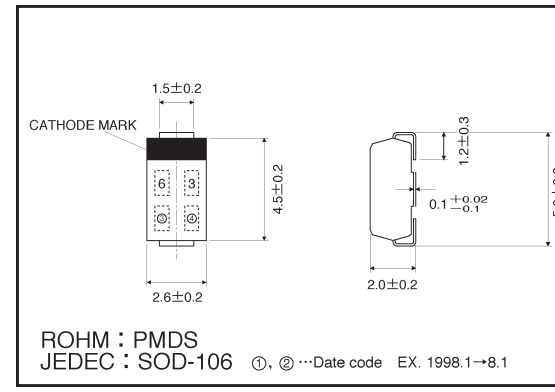
Ultra high–speed rectifier diode
1SR159–200

●Applications

High frequency rectification
For switching power supply.

●External dimensions (Units: mm)



●Features

1) Small surface mounting type. (PMDS)
2) Low forward voltage. (V_F)
3) Reverse recovery time is very fast.
(typical : 23ns)

●Construction

Silicon epitaxial planar

●Absolute maximum ratings (Ta = 25°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	Tj	150	℃
Storage temperature	Tstg	−55～+150	℃

*1 When mounted on an alumina PCB board *2 60 Hz for 1 ⌓

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	−	0.90	0.98	V	I_F=1.0A
Reverse current	I_R	−	0.6	10	μA	V_R=200V
Reverse recovery time	t_{rr}	−	23	50	ns	I_F=I_R=100mA

●Electrical characteristic curves (Ta = 25°C unless specified otherwise)

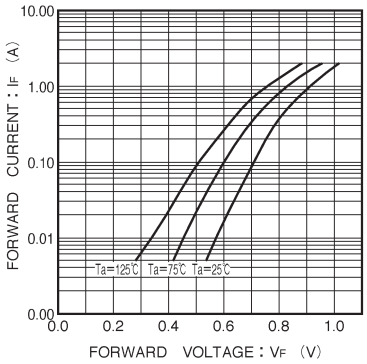


Fig. 1 Forward characteristics

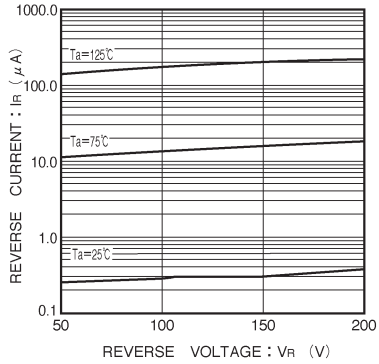


Fig. 2 Reverse characteristics

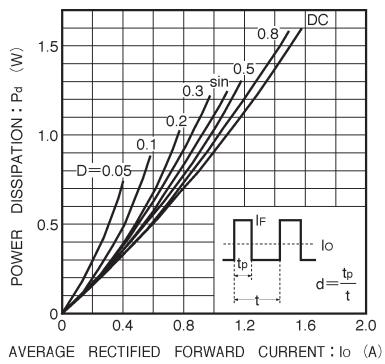


Fig. 3 Power dissipation curves

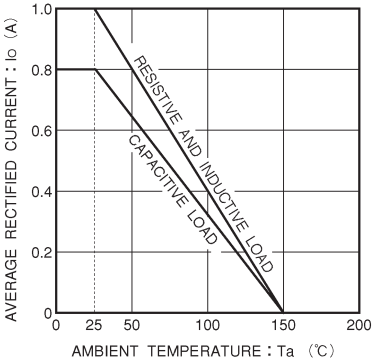


Fig.4 Derating curve

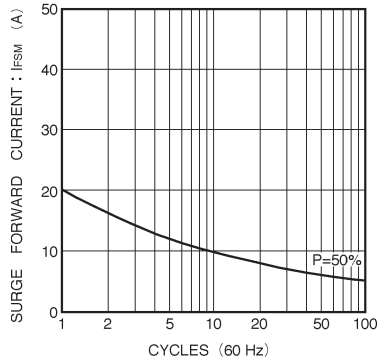


Fig. 5 Maximum peak forward surge current characteristics