

High-speed rectifier diode

1SR153-400

●Applications

High speed rectification

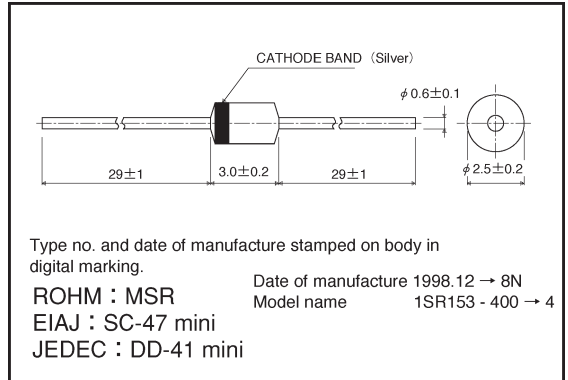
●Features

- 1) Cylindrical mold. (MSD)
- 2) High reliability.
- 3) Assures 400V while maintaining high speed.

●Construction

Silicon diffused junction

●External dimensions (Units: mm)



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Absolute peak reverse voltage	V_{RSM}	500	V
Peak reverse voltage	V_{RM}	400	V
Mean rectifying current	I_o	1.0	A
Peak forward surge current *	I_{FSM}	30	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-40 ~ +150	°C

* 60 Hz for 1 \sphericalangle

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	—	1.14	1.3	V	$I_F=0.8A$
Reverse current	I_R	—	0.20	10	μA	$V_R=400V$
Reverse recovery time	t_{rr}	—	0.2	0.4	μs	$I_F=I_R=10mA, I_{rr}=1mA$

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

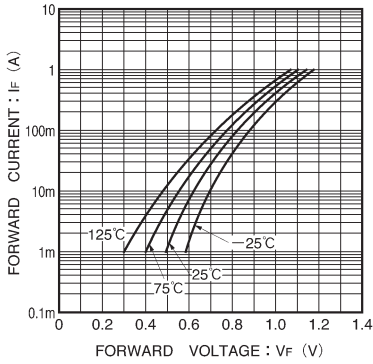


Fig. 1 Forward characteristics

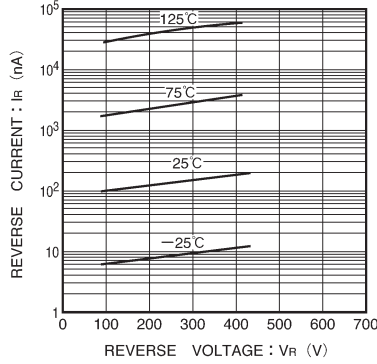


Fig. 2 Reverse characteristics

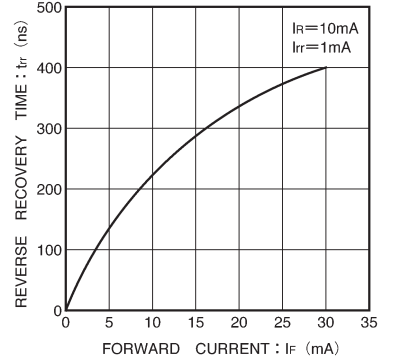


Fig. 3 Reverse recovery time characteristics

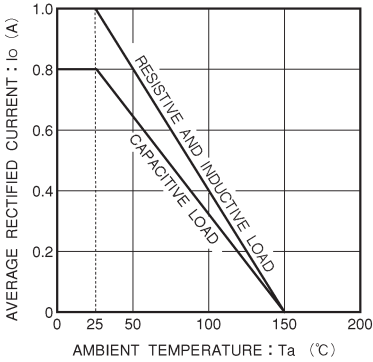


Fig. 4 Derating curve

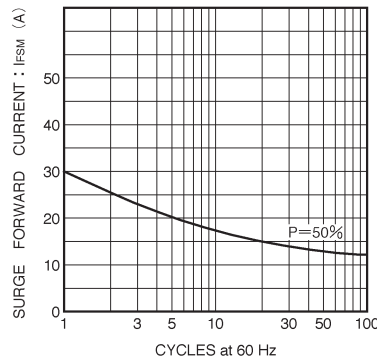


Fig. 5 Surge current characteristics

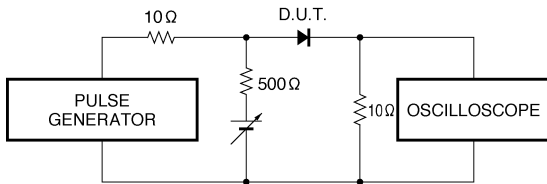


Fig. 6 Reverse recovery time (tr) measurement circuit