

Rectifier diode

1SR153-400

●Applications

High speed rectification

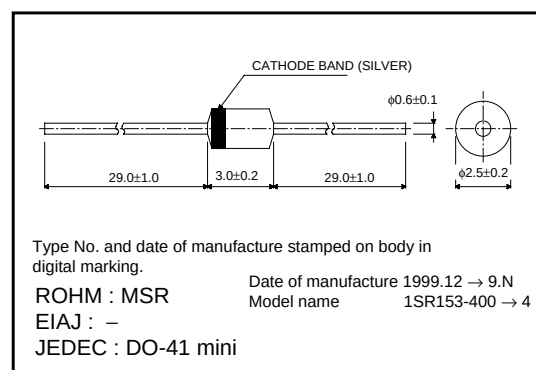
●Features

- 1) Cylindrical mold. (MSR)
- 2) $V_{RM}=400V$ guaranteed while maintaining high speed.
- 3) High reliability.

●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

* 60Hz for 1 $\varnothing$

●Electrical characteristics (Ta = 25°C)

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

Diodes

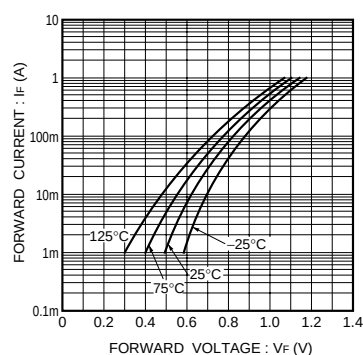
●Electrical characteristic curves ($T_a = 25^\circ\text{C}$)

Fig.1 Forward characteristics

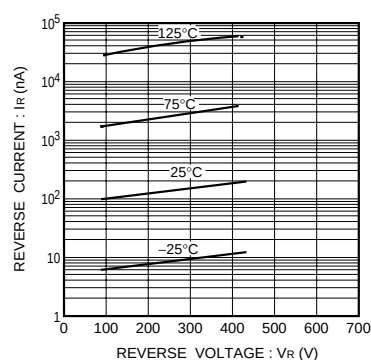


Fig.2 Reverse characteristics

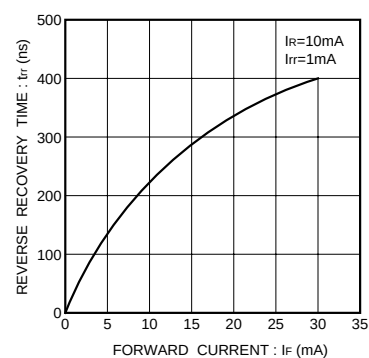


Fig.3 Reverse recovery time characteristics

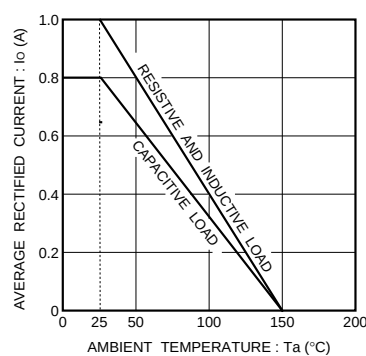


Fig.4 Derating curve

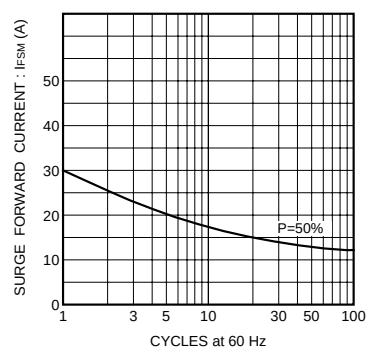
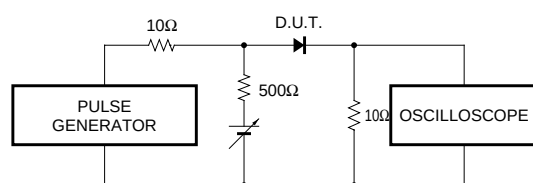


Fig.5 Surge current characteristics

Fig.6 Reverse recovery time (t_r) measurement circuit