

# Rectifier diode

## 1SR153-400

### ●Applications

High speed rectification

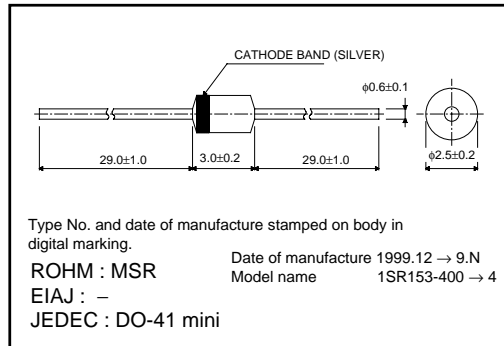
### ●Features

- 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	$\mu A$	$V_R=400V$
Reverse recovery time	$t_r$	-	-	0.4	$\mu s$	$I_F=I_R=10mA, I_{rr}=1mA$

Diodes

● Electrical characteristic curves (Ta = 25°C)

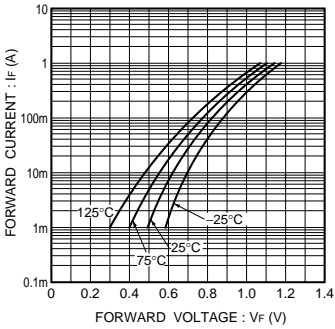


Fig.1 Forward characteristics

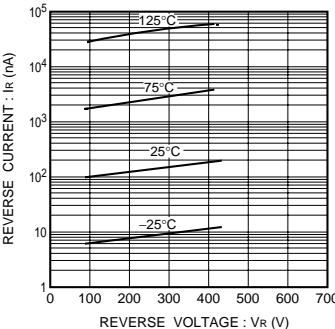


Fig.2 Reverse characteristics

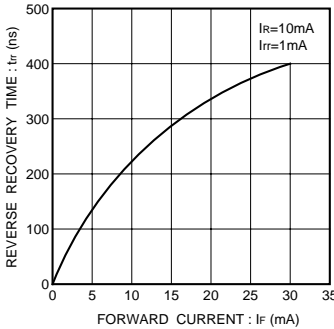


Fig.3 Reverse recovery time characteristics

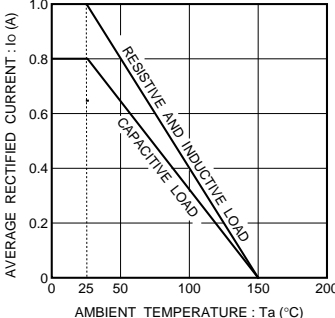


Fig.4 Derating curve

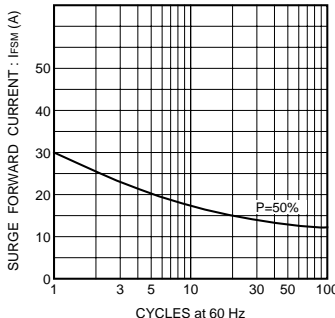


Fig.5 Surge current characteristics

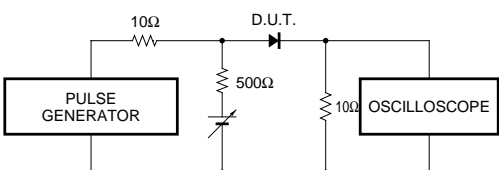


Fig.6 Reverse recovery time (tr) measurement circuit

