

# Rectifier diode

## 1SR139-400

### ●Applications

High speed rectification

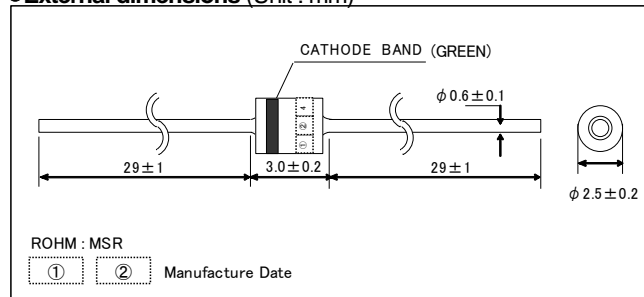
### ●Features

- 1) Cylindrical mold. (MSR)
- 2) High reliability.
- 3) Fast recovery speed.

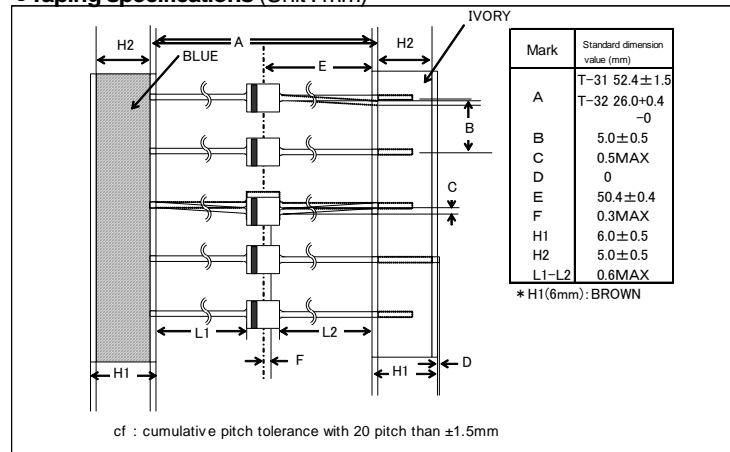
### ●Construction

Silicon diffused junction

### ●External dimensions (Unit : mm)



### ●Taping specifications (Unit : mm)



### ●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Absolute peak reverse voltage	$V_{RMS}$	500	V
Reverse voltage (repetitive peak)	$V_R$	400	V
Average rectified forward current (*1)	$I_o$	1	A
Forward current surge peak (60Hz · 1cyc)	$I_{FSM}$	40	A
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-40 to +150	°C

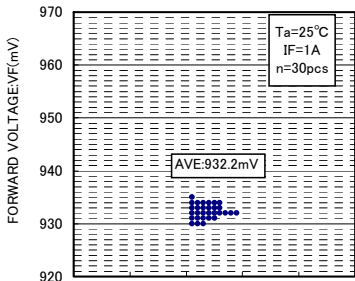
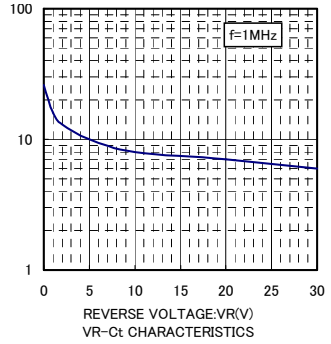
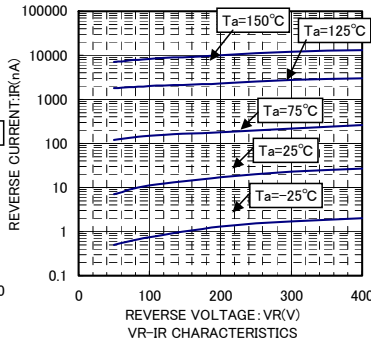
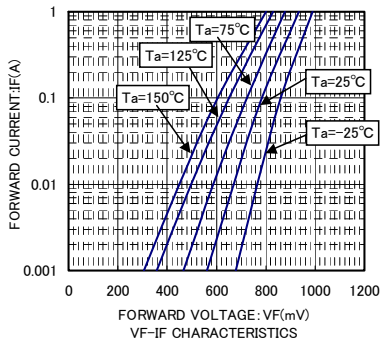
(\*1) Mounting on alumina board

### ●Electrical characteristics (Ta=25°C)

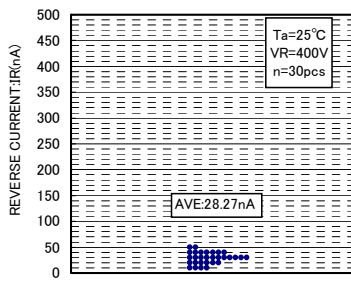
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	1.1	V	$I_F=1.0A$
Reverse current	$I_R$	-	-	10	μA	$V_R=400V$

Diodes

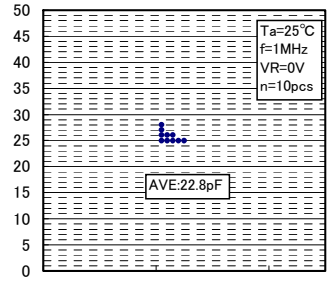
●Electrical characteristic curves (Ta=25°C)



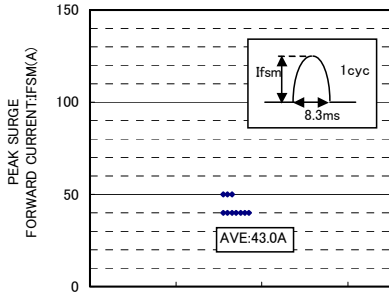
VF DISPERSION MAP



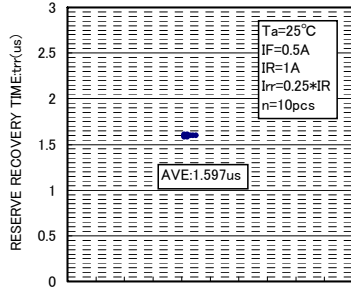
IR DISPERSION MAP



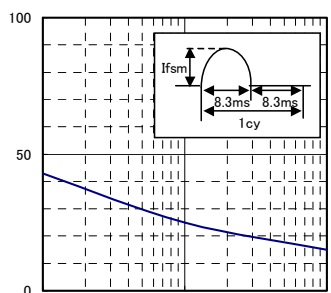
Ct DISPERSION MAP



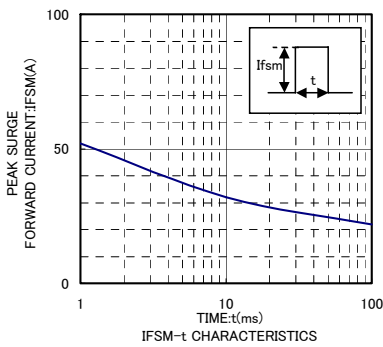
IFSM DISERSION MAP



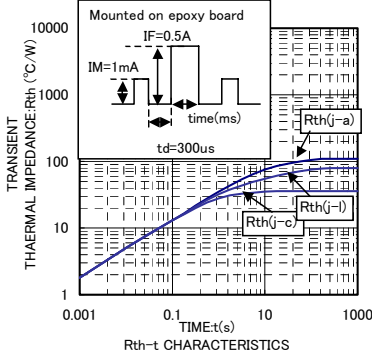
trr DISPERSION MAP



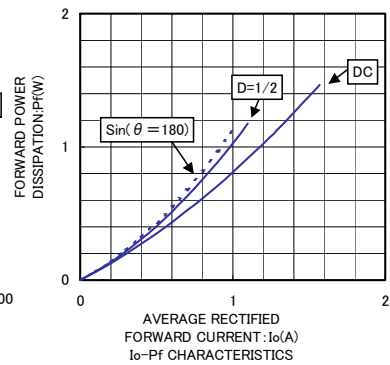
IFSM-CYCLE CHARACTERISTICS



IFSM-t CHARACTERISTICS

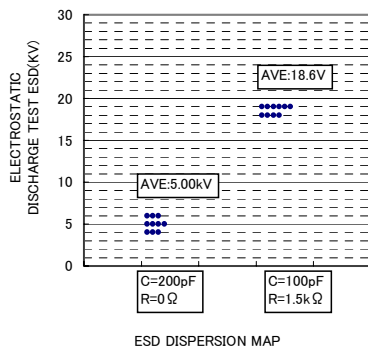
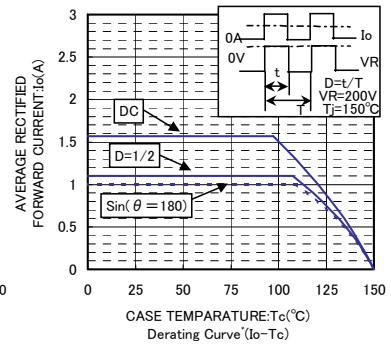
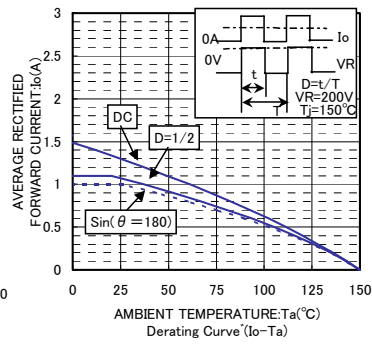
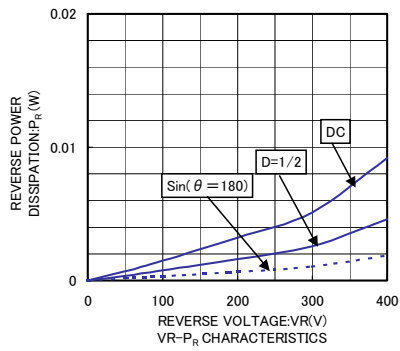


Rth-t CHARACTERISTICS



Io-PF CHARACTERISTICS

Diodes



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