

Rectifier diode

1SR153-400

●Applications

For fast rectifier

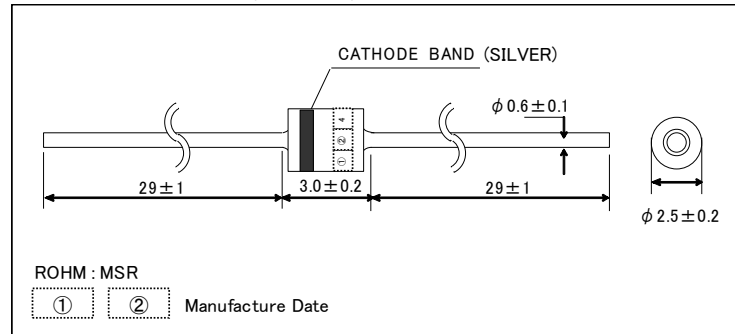
●Features

- 1) Cylindrical mold type. (MSR)
- 2) High reliability.
- 3) High switching speed.

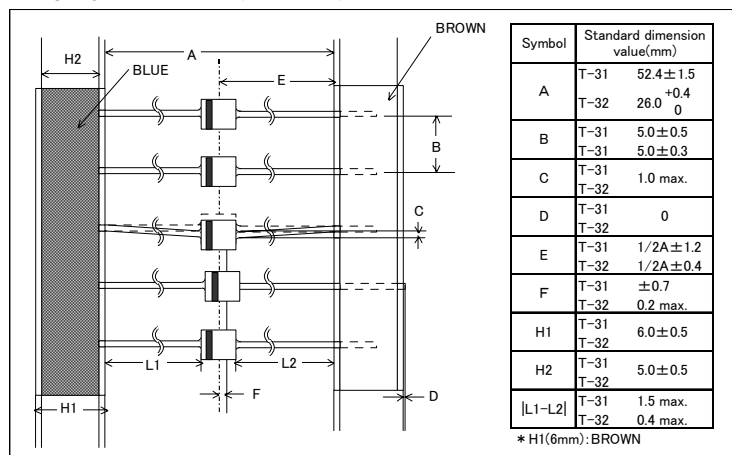
●Construction

Silicon diffused junction

●External dimensions (Unit : mm)



●Taping dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Maximum peak surge reverse voltage	V_{RMS}	500	V
Surge reverse voltage	V_R	400	V
Average rectified forward current (*1)	I_o	1	A
Forward current surge peak (60Hz·1cyc)	I_{FSM}	30	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-40 to +150	°C

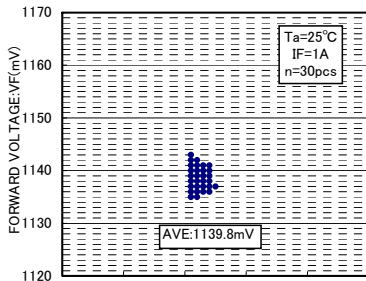
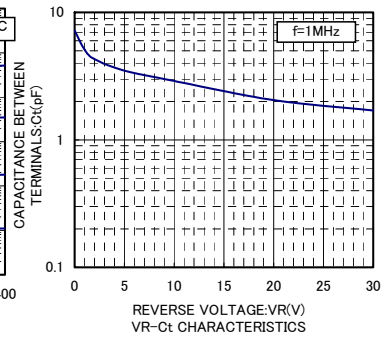
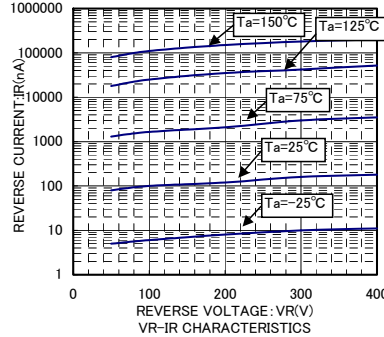
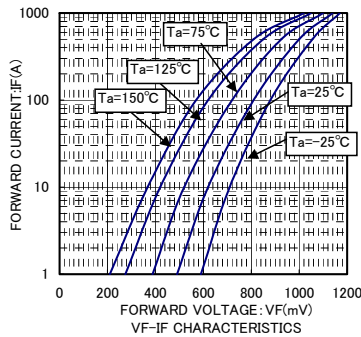
(*1) Mounting on alumina board

●Electrical characteristics (Ta=25°C)

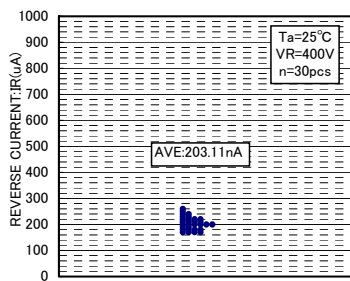
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	1.3	V	$I_F=0.8A$
Reverse current	I_R	-	-	10	uA	$V_R=400V$
Reverse recovery time	t_{rr}	-	-	0.4	us	$I_F=10mA, I_R=10mA, I_{rr}=1mA$

Diodes

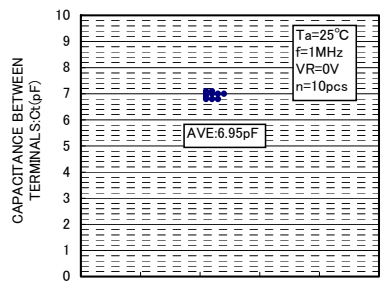
●Electrical characteristic curves (Ta=25°C)



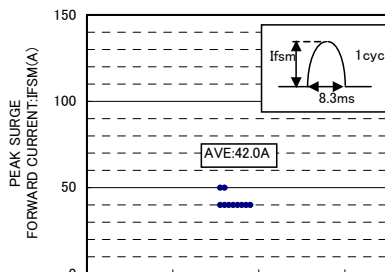
VF DISPERSION MAP



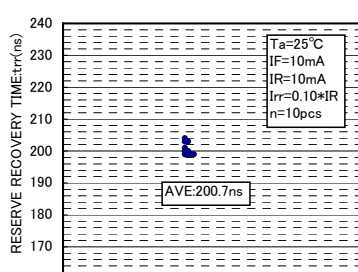
IR DISPERSION MAP



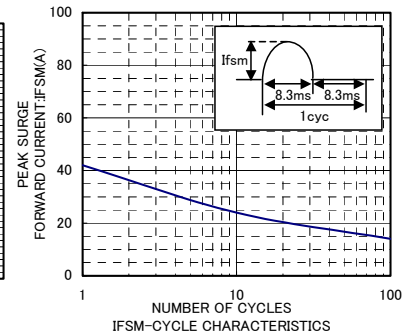
Ct DISPERSION MAP



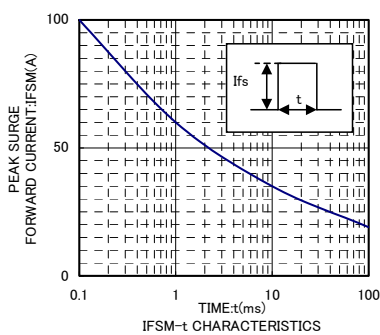
IFSM DISERSION MAP



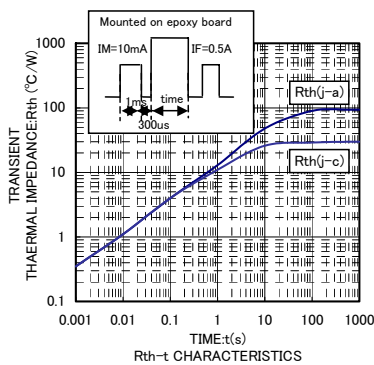
trr DISPERSION MAP



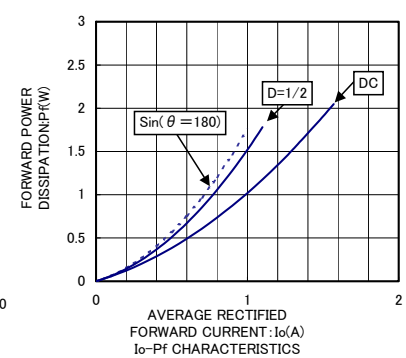
IFSM-CYCLE CHARACTERISTICS



IFSM-t CHARACTERISTICS

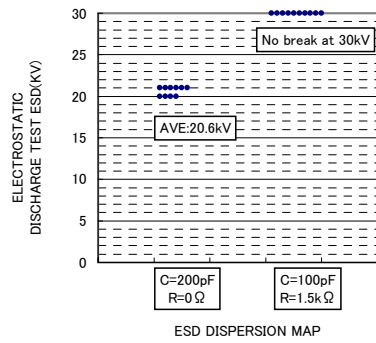
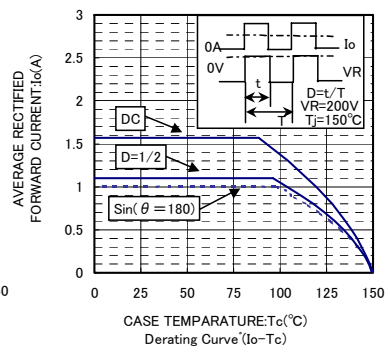
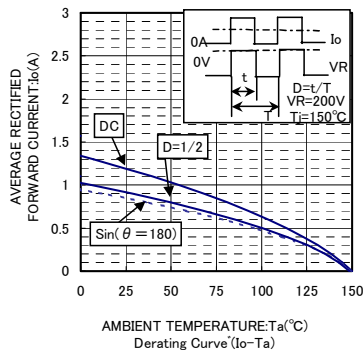
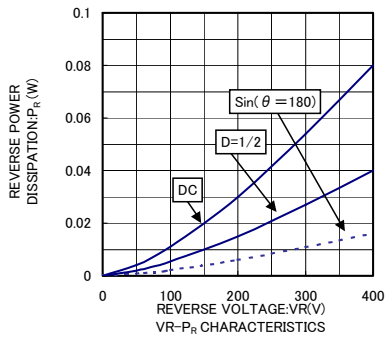


Rth-t CHARACTERISTICS



Io-Pf CHARACTERISTICS

Diodes



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