

Fast recovery diode

RF051UA1D

●Applications

General rectification

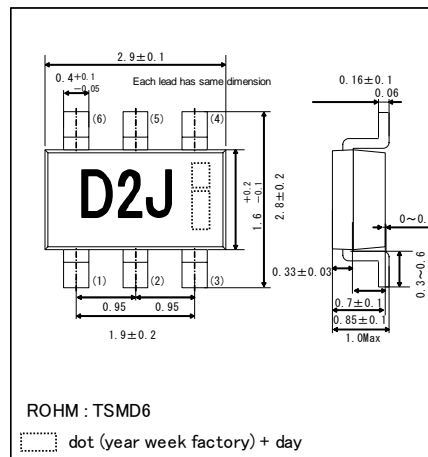
●Features

- 1) Small power mold type. (TSM6)
- 2) Very fast recovery.
- 3) High reliability

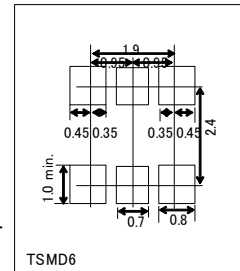
●Construction

Silicon epitaxial planar

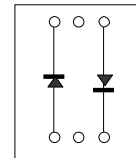
● External dimensions (Unit : mm)



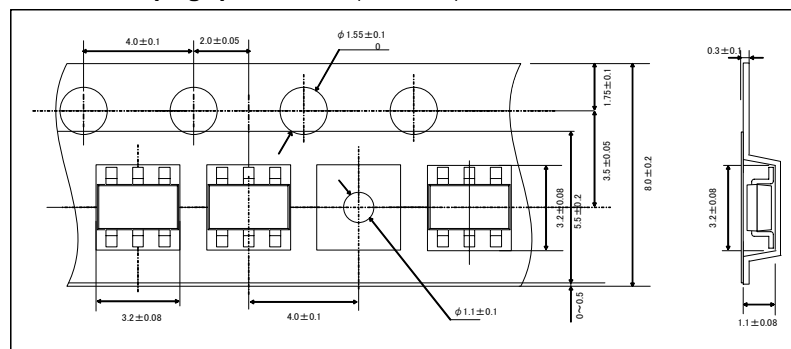
● Land size figure (Unit : mm)



●Structure



● Taping specifications (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	100	V
Reverse voltage (DC)	V_R	100	V
Average rectified forward current (*1)	I_o	0.5	A
Forward current surge peak (60Hz·1cyc)	I_{FSM}	5	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

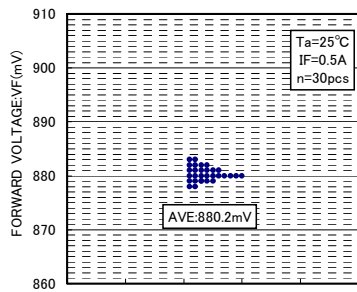
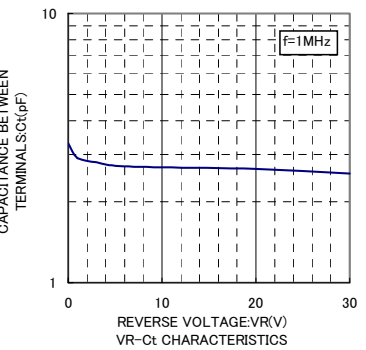
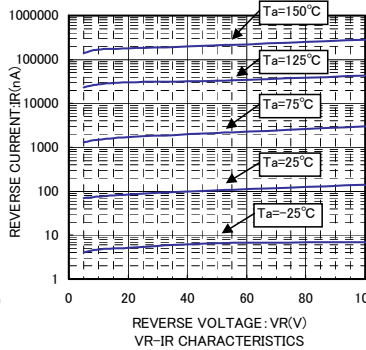
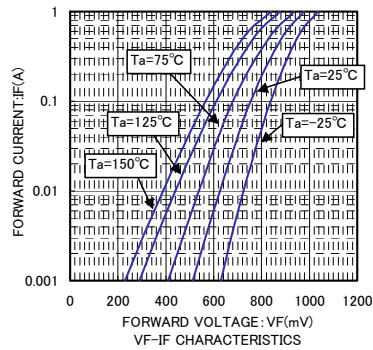
(*1) Rating for a per diode

●Electrical characteristics (Ta=25°C)

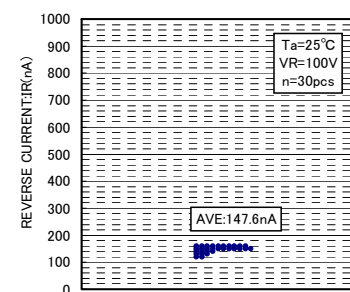
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.98	V	$I_F=0.5A$
Reverse current	I_R	-	-	10	μA	$V_R=100V$
Reverse recovery time	t_{rr}	-	-	25	ns	$I_F=0.5A, I_R=1A, I_{rr}=0.25*I_R$

Diodes

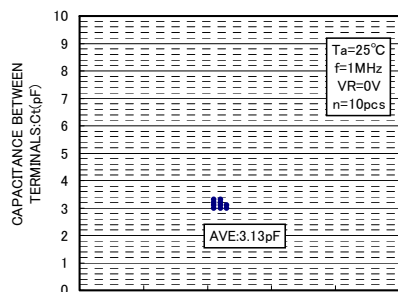
●Electrical characteristic curves (Ta=25°C)



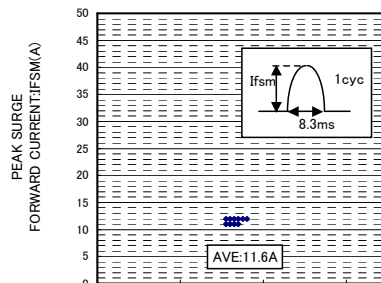
VF DISPERSION MAP



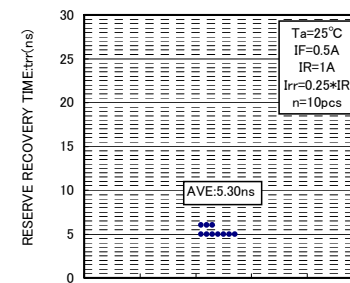
IR DISPERSION MAP



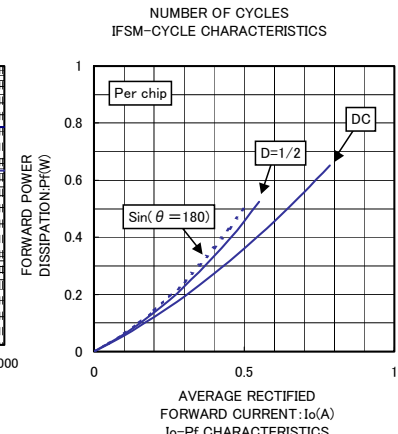
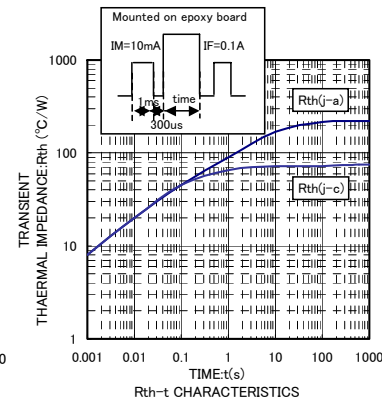
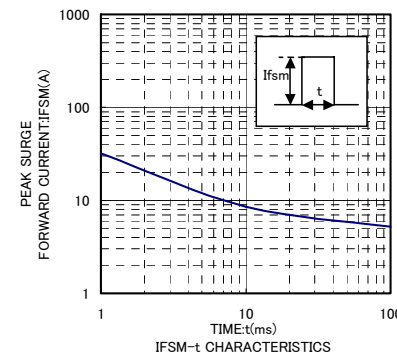
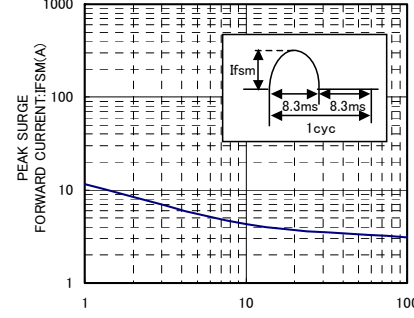
Ct DISPERSION MAP



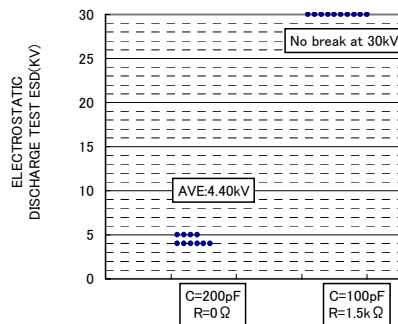
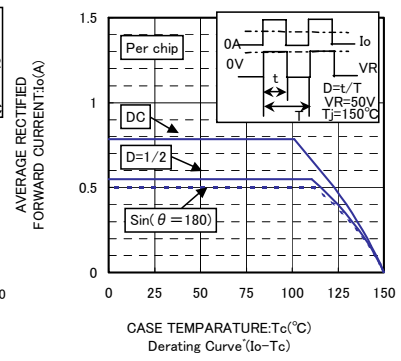
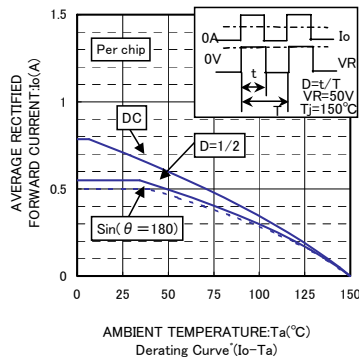
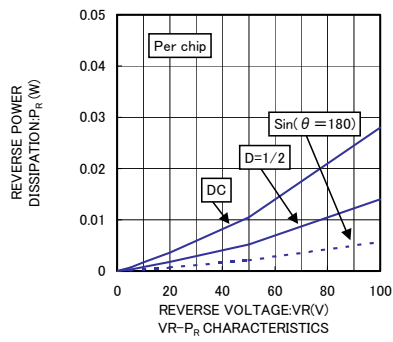
IFSM DISERSION MAP



trr DISPERSION MAP



Diodes



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