

Fast Recovery Diode

RF05VA1S

● **Applications**

General rectification

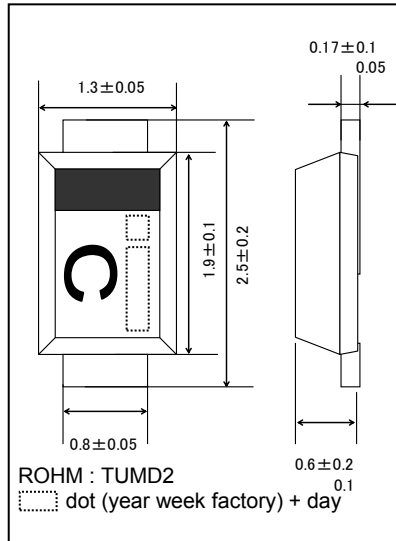
● **Features**

- 1) Small mold type. (TUMD2)
- 2) Ultra high switching speed
- 3) Low V_F

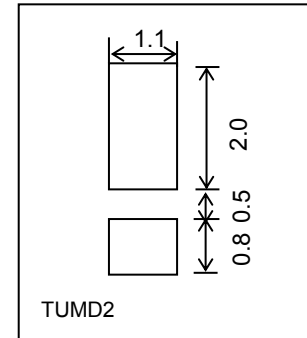
● **Construction**

Silicon epitaxial planer

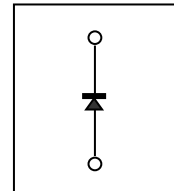
● **Dimensions (Unit : mm)**



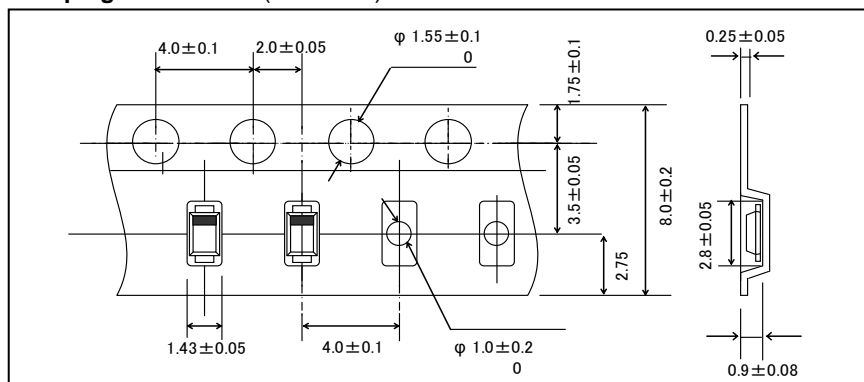
● **Land size figure (Unit : mm)**



● **Structure**



● **Taping dimensions (Unit : mm)**



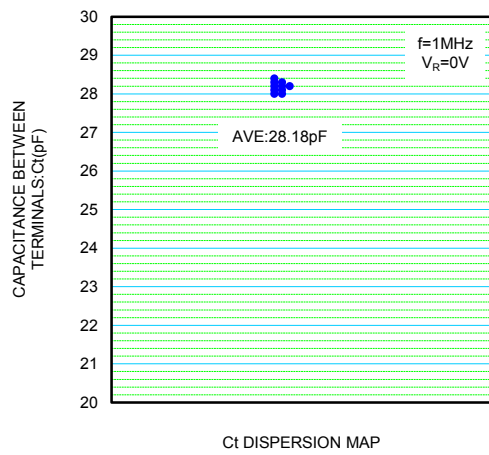
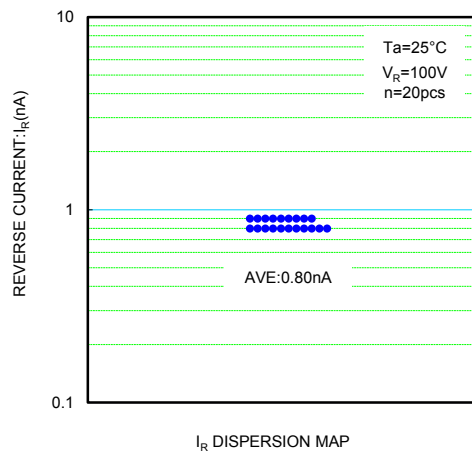
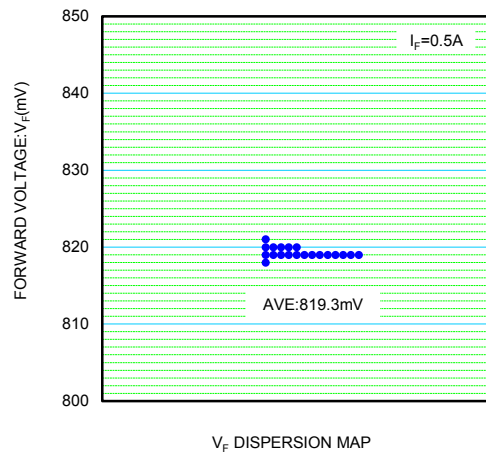
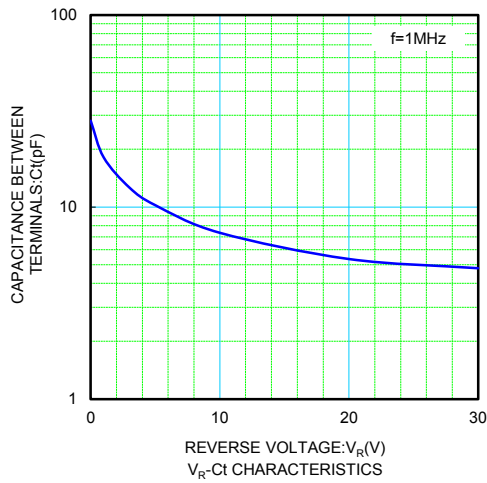
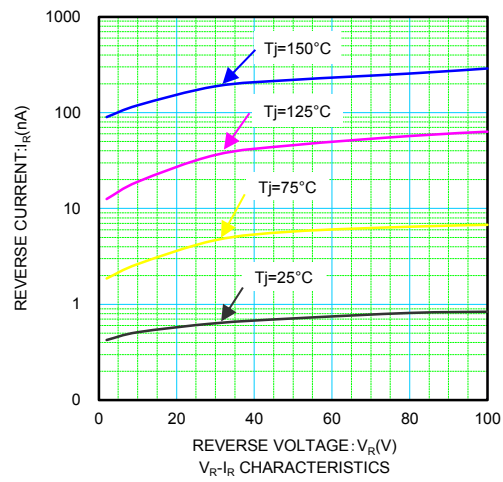
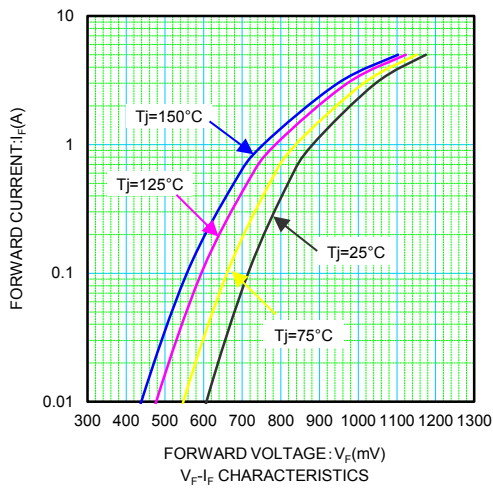
● **Absolute maximum ratings (Ta=25°C)**

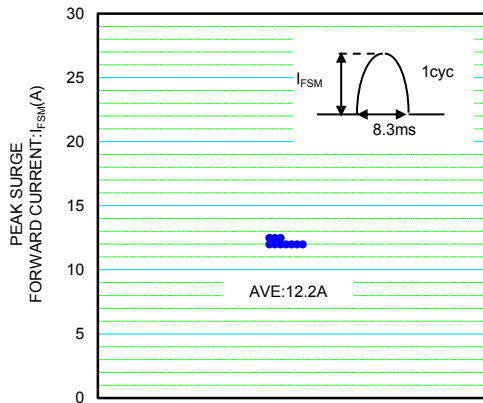
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive)	V_{RM}	100	V
Reverse voltage (DC)	V_R	100	V
Average rectified forward current (*1)	I_o	0.5	A
Forward current surge peak (60Hz · 1cyc)	I_{FSM}	6	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

(*1)On the Glass epoxy substrate

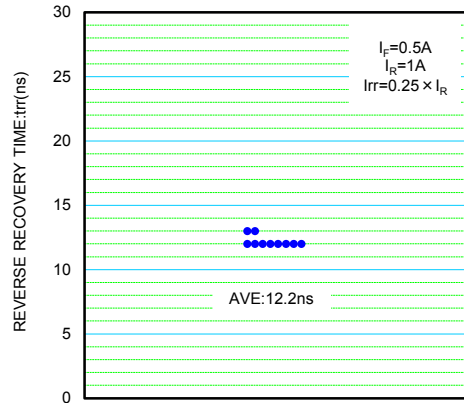
● **Electrical characteristics (Ta=25°C)**

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	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \cdot I_R$

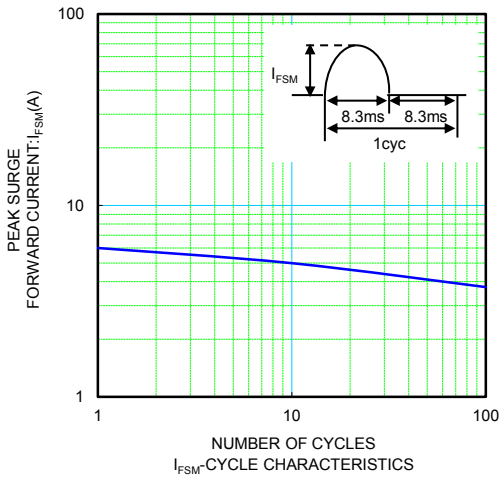




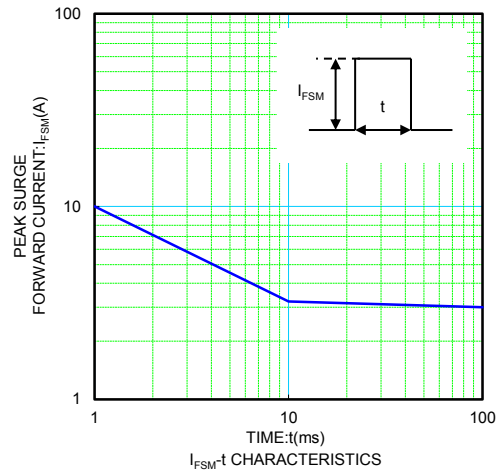
I_{FSM} DISPERSION MAP



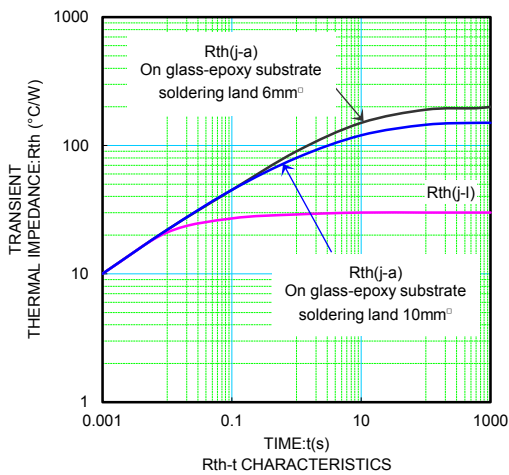
t_{rr} DISPERSION MAP



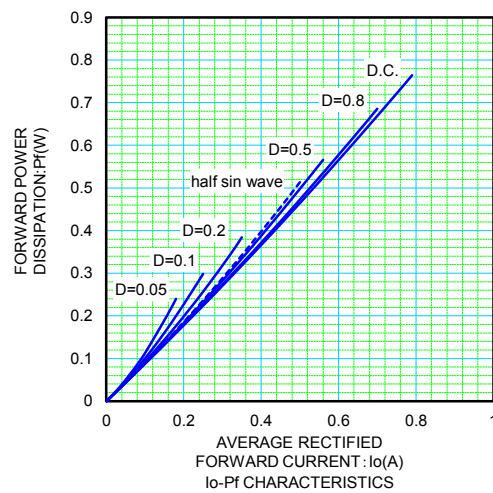
I_{FSM} -CYCLE CHARACTERISTICS



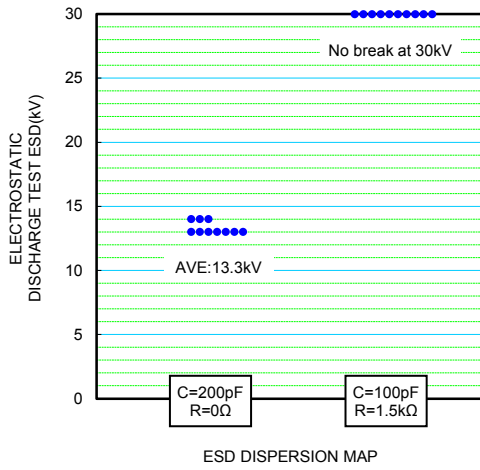
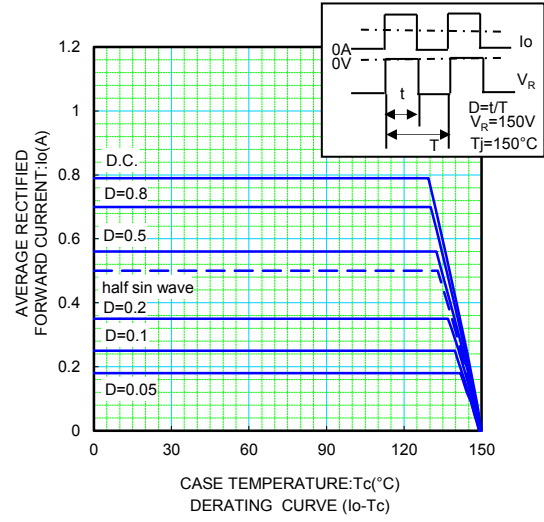
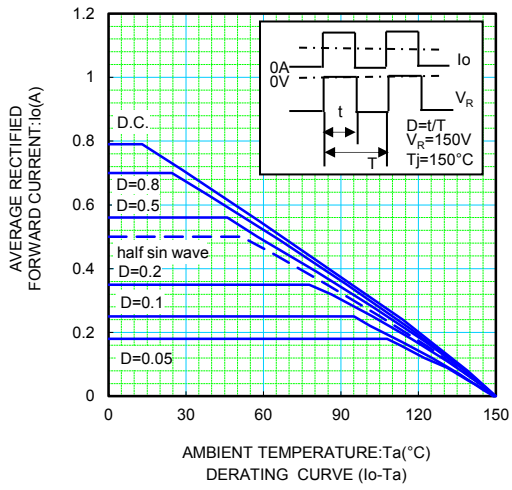
I_{FSM} - t CHARACTERISTICS



R_{th} - t CHARACTERISTICS



I_o - P_f CHARACTERISTICS



Notes

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