

# Super Fast Recovery Diode

RFUH25NS3S

● **Serise**

Super Fast Recovery

● **Applications**

General rectification

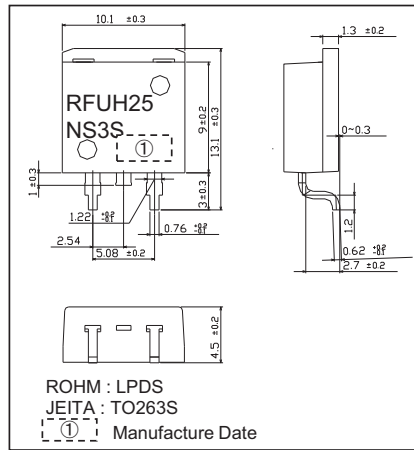
● **Features**

- 1) Ultra low switching loss
- 2) High current overload capacity

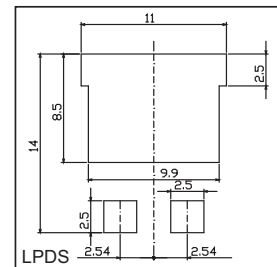
● **Construction**

Silicon epitaxial planer type

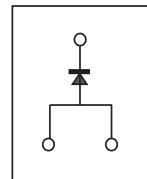
● **Dimensions(Unit : mm)**



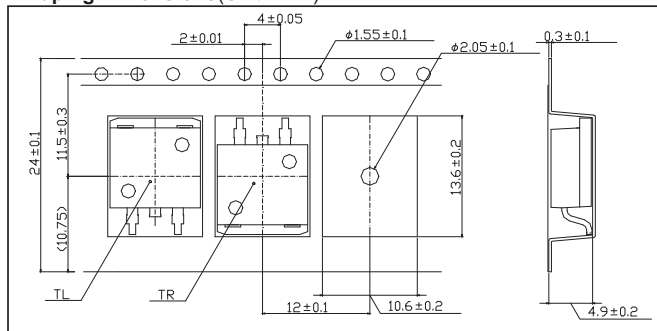
● **Land Size Figure(Unit : mm)**



● **Structure**



● **Taping Dimensions(Unit : mm)**



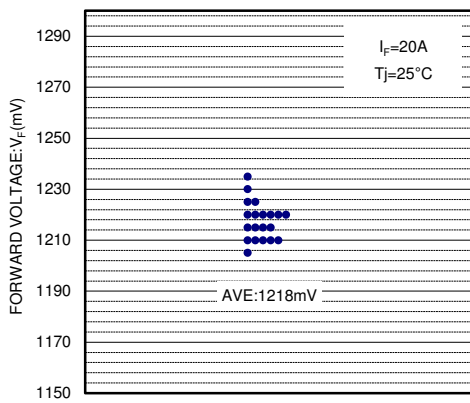
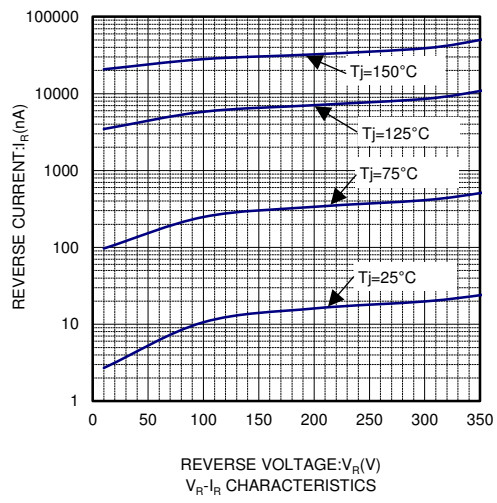
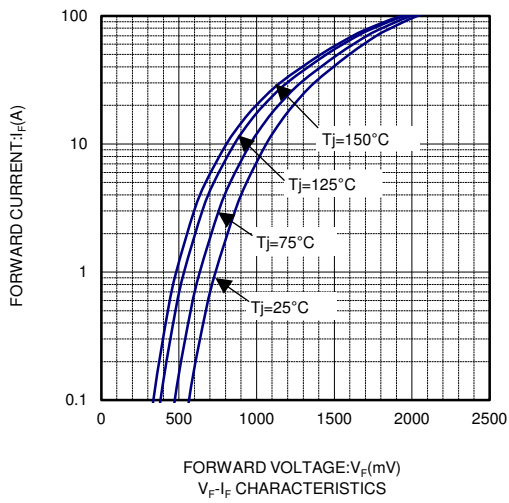
● **Absolute Maximum Ratings(Tc=25°C)**

Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	$V_{RM}$	Duty $\leq 0.5$	350	V
Reverse voltage	$V_R$	Direct voltage	350	V
Average rectified forward current	$I_o$	60Hz half sin wave , Resistive load   $T_c=57^\circ C$	20	A
Forward current surge peak	$I_{FSM}$	60Hz half sin wave , Non-repetitive at $T_j=25^\circ C$ (*)	100	A
Junction temperature	$T_j$		150	$^\circ C$
Storage temperature	$T_{stg}$		-55 to +150	$^\circ C$

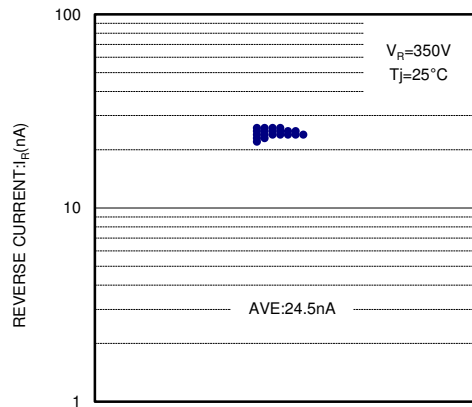
(\*) 1-3pin common circuit

● **Electrical Characteristics(Tj=25°C)**

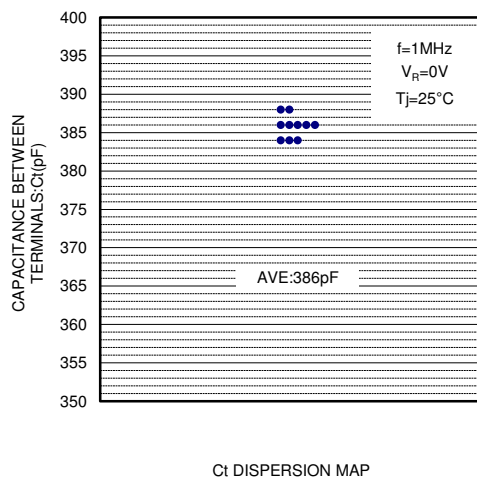
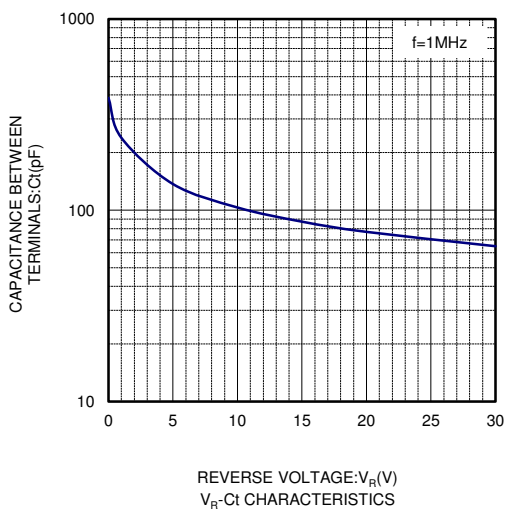
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F=20A$	—	1.25	1.45	V
Reverse current	$I_R$	$V_R=350V$	—	0.05	10	$\mu A$
Reverse recovery time	$t_{rr}$	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	—	18	30	ns
Thermal resistance	$R_{th(j-c)}$	Junction to case	—	—	2.5	$^\circ C/W$



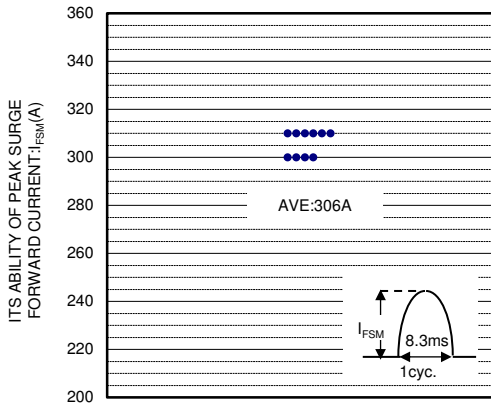
$V_F$  DISPERSION MAP



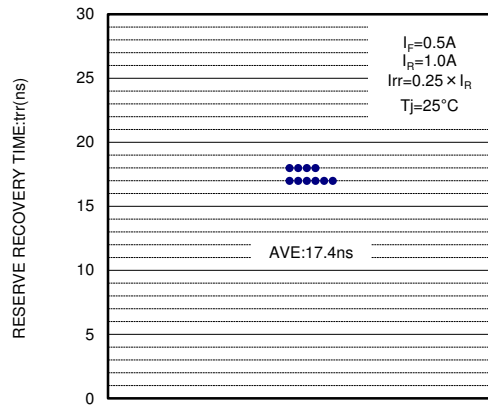
$I_R$  DISPERSION MAP



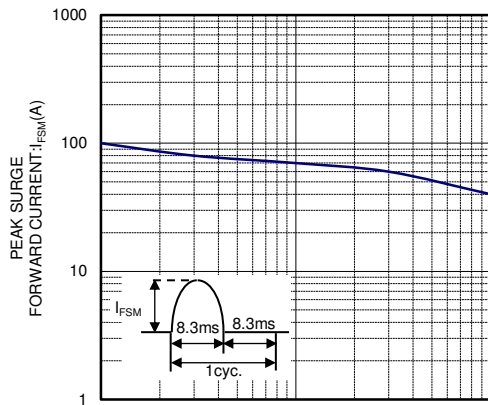
$C_t$  DISPERSION MAP



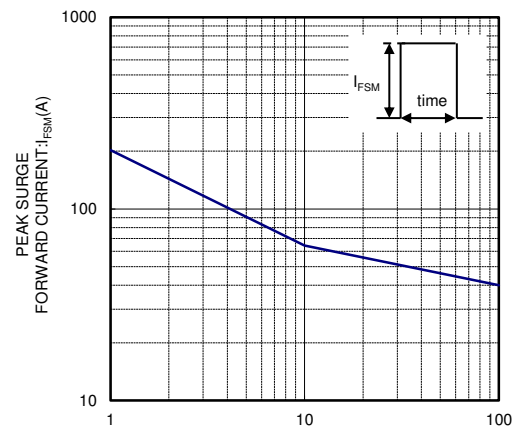
$I_{FSM}$  DISPERSION MAP



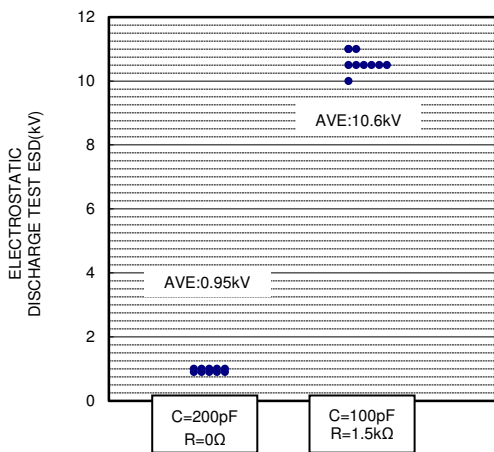
$t_{rr}$  DISPERSION MAP



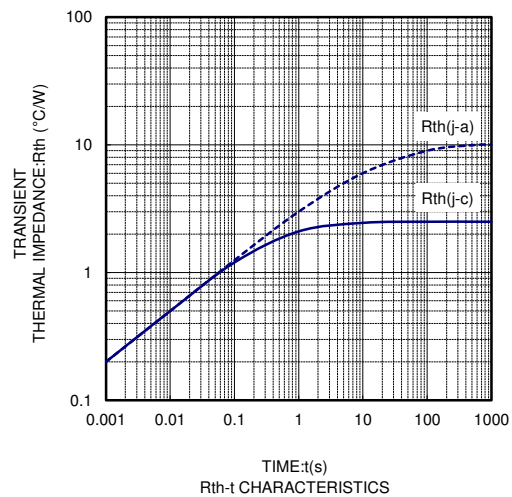
NUMBER OF CYCLES  
 $I_{FSM}$  CYCLE CHARACTERISTICS



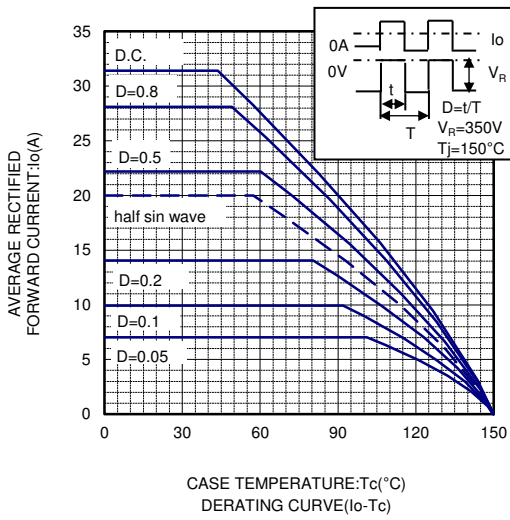
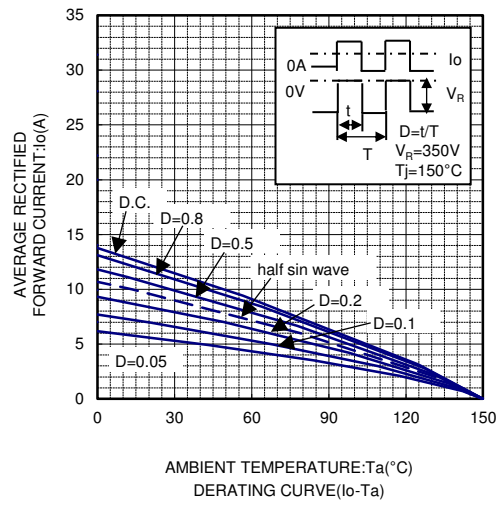
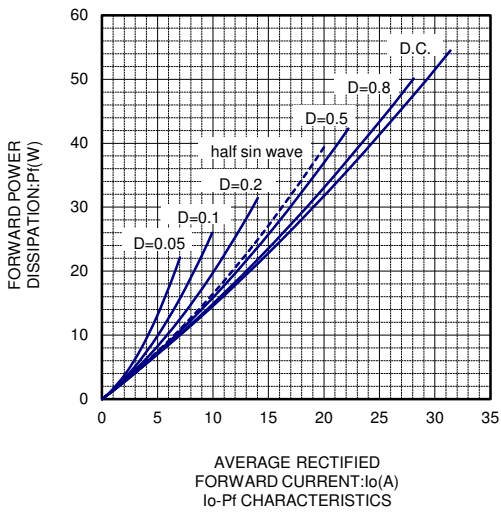
TIME:t(ms)  
 $I_{FSM}$ -t CHARACTERISTICS



ESD DISPERSION MAP



TIME:t(s)  
 $R_{th}$ -t CHARACTERISTICS



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