

# Super Fast Recovery Diode

## RFUH10NS6S

● **Serise**

Super Fast Recovery

● **Applications**

General rectification

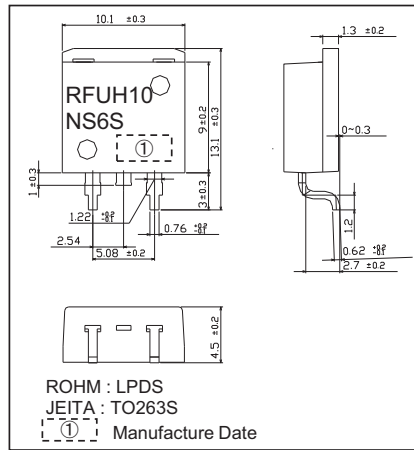
● **Features**

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

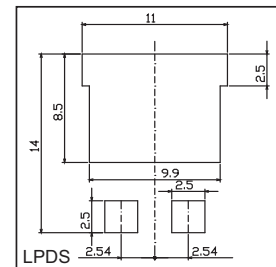
● **Construction**

Silicon epitaxial planer type

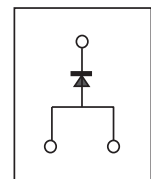
● **Dimensions(Unit : mm)**



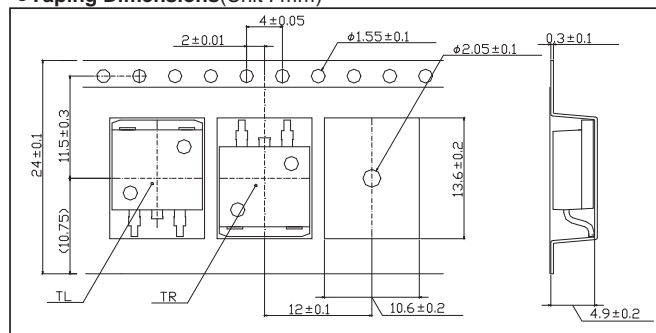
● **Land Size Figure(Unit : mm)**



● **Structure**



● **Taping Dimensions(Unit : mm)**



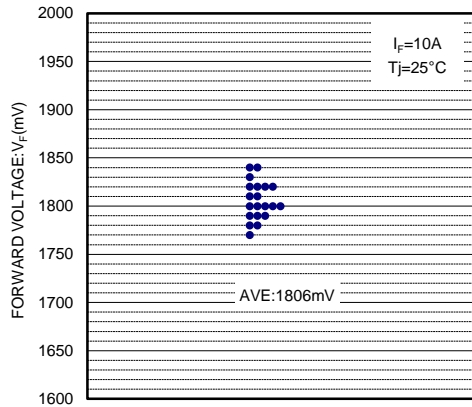
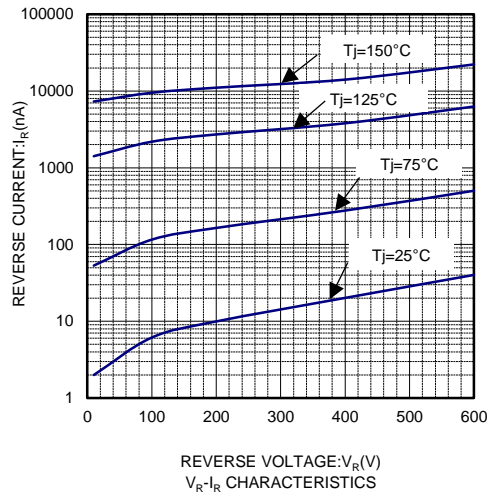
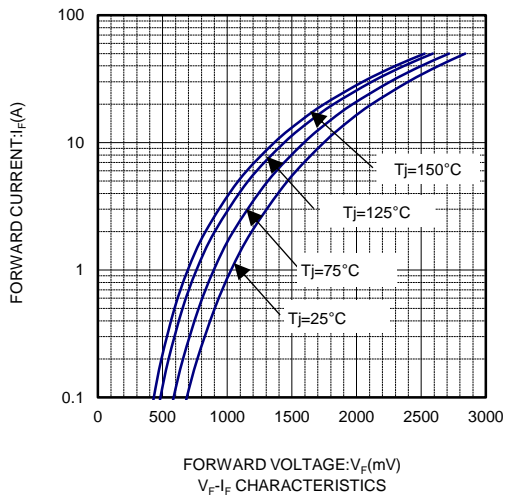
● **Absolute Maximum Ratings(Tc=25°C)**

Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	$V_{RM}$	Duty $\leq 0.5$	600	V
Reverse voltage	$V_R$	Direct voltage	600	V
Average rectified forward current	$I_o$	60Hz half sin wave , Resistive load   Tc=64°C	10	A
Forward current surge peak	$I_{FSM}$	60Hz half sin wave , Non-repetitive at Tj=25°C (*1)	60	A
Junction temperature	Tj		150	°C
Storage temperature	Tstg		-55 to +150	°C

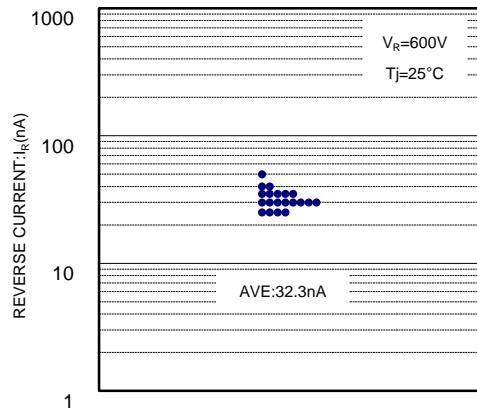
(\*1) 1-3pin common circuit

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

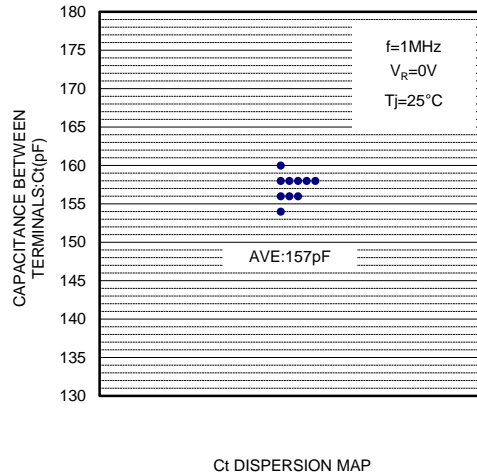
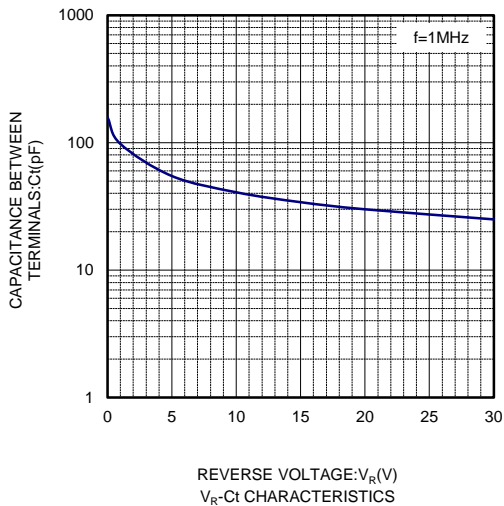
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F=10A$	—	1.8	2.8	V
Reverse current	$I_R$	$V_R=600V$	—	0.05	10	$\mu A$
Reverse recovery time	trr	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	—	15	25	ns
Thermal resistance	Rth(j-c)	Junction to case	—	—	3.0	°C/W



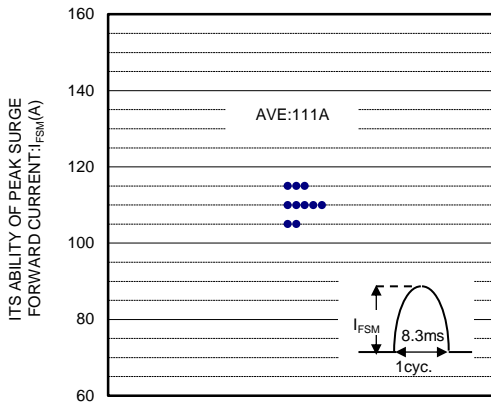
$V_F$  DISPERSION MAP



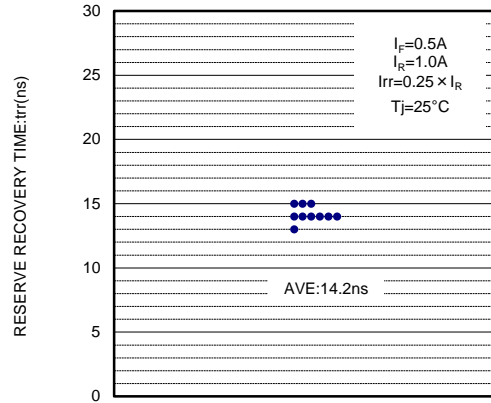
$I_R$  DISPERSION MAP



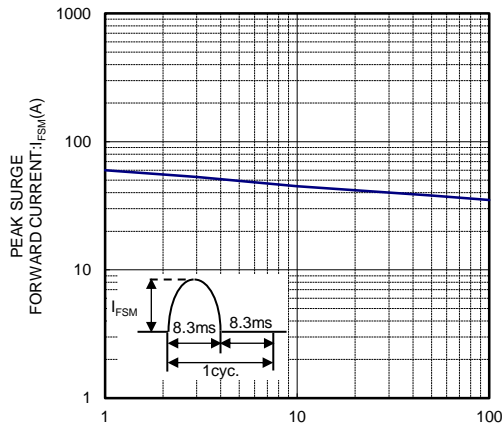
$C_t$  DISPERSION MAP



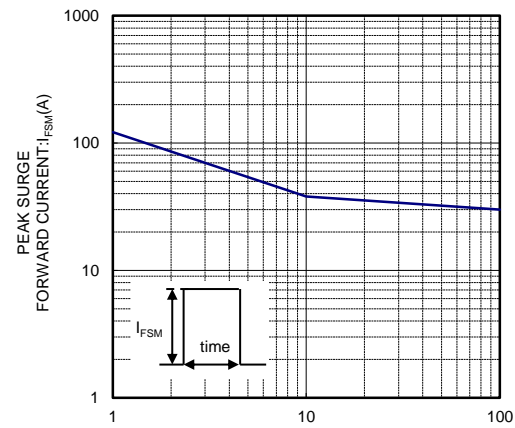
$I_{FSM}$  DISPERSION MAP



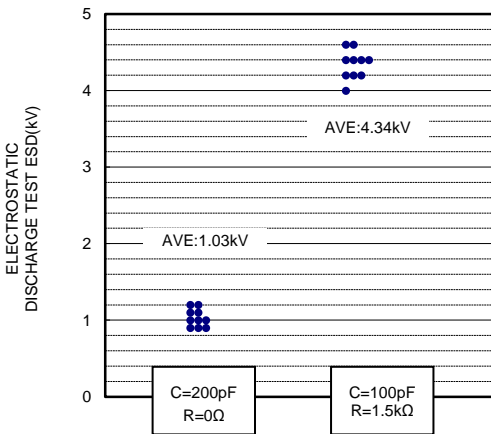
$t_{tr}$  DISPERSION MAP



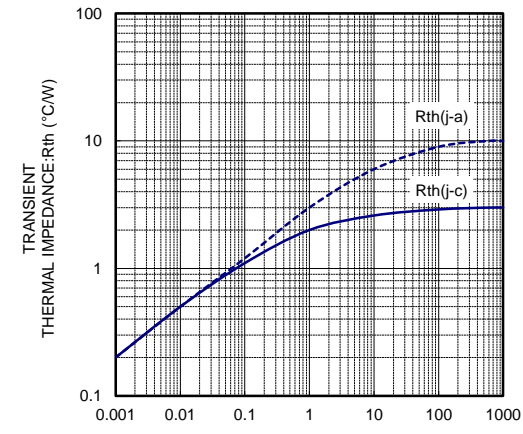
$I_{FSM}$  CYCLE CHARACTERISTICS



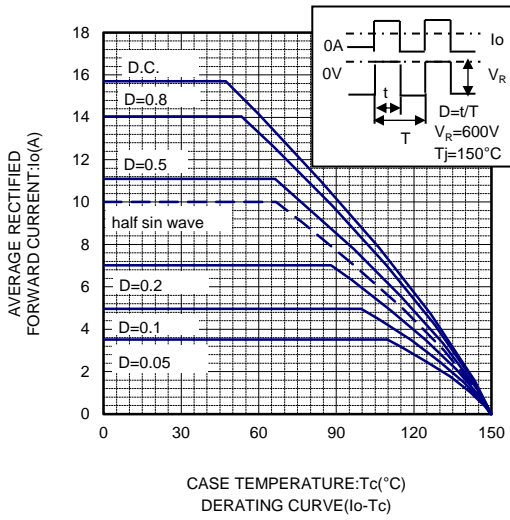
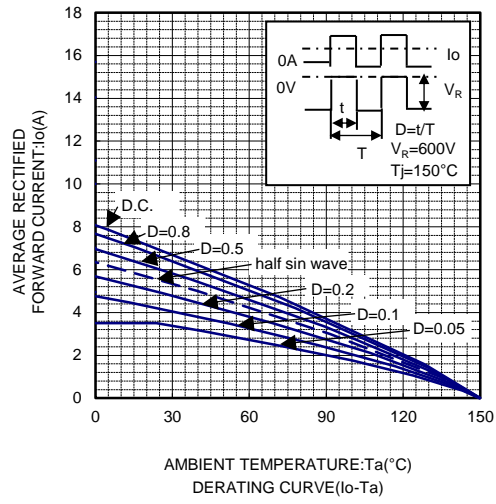
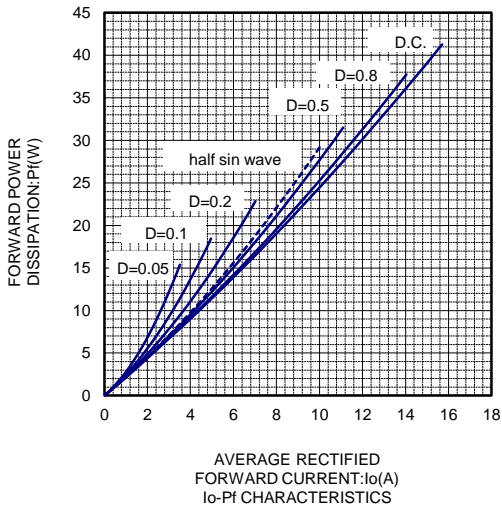
$I_{FSM}$ - $t$  CHARACTERISTICS



ESD DISPERSION MAP



$R_{th}$ - $t$  CHARACTERISTICS



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