

Super Fast Recovery Diode

RFUH20NS4S

●Serise

Super Fast Recovery

●Applications

General rectification

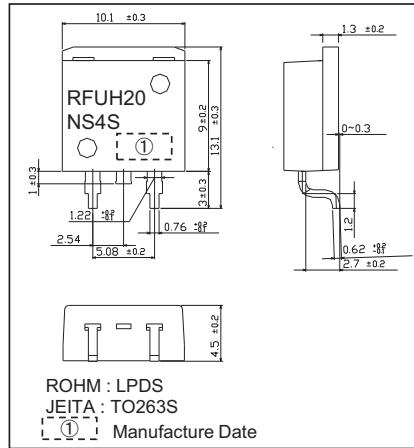
●Features

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

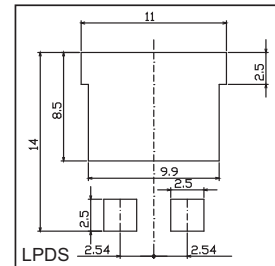
●Construction

Silicon epitaxial planer type

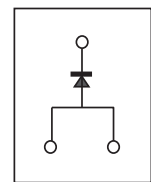
●Dimensions(Unit : mm)



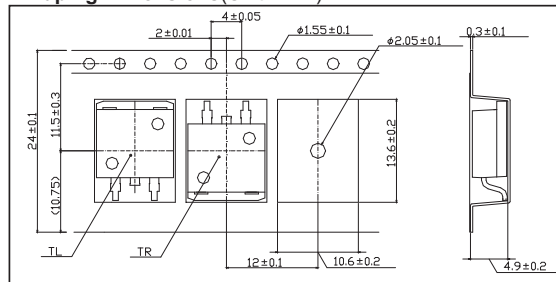
●Land Size Figure(Unit : mm)



●Structure



●Taping Dimensions(Unit : mm)



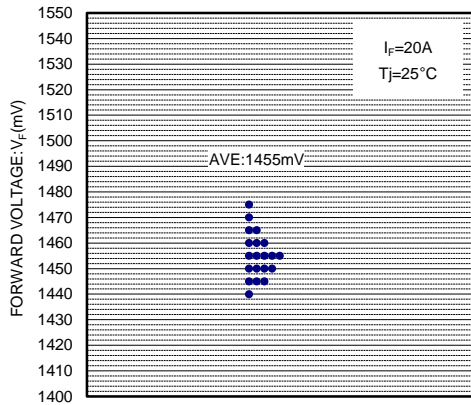
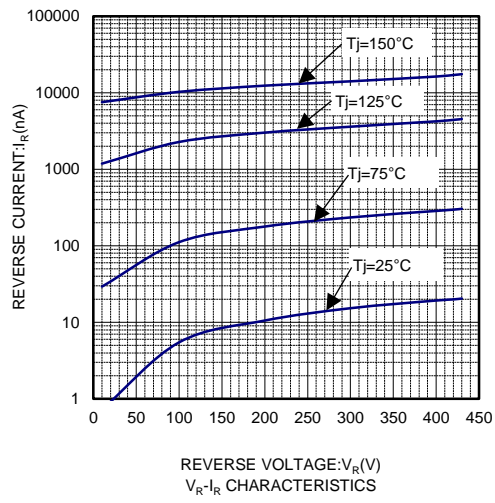
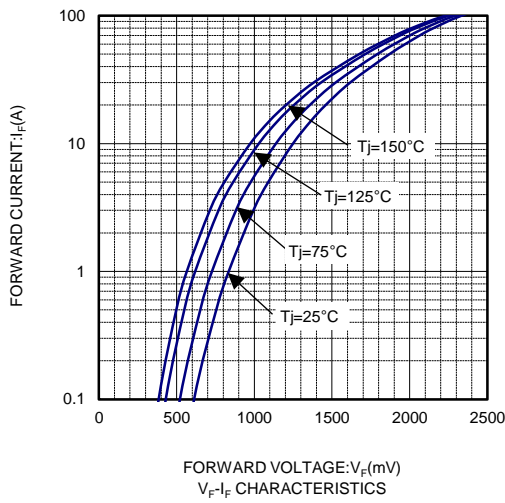
●Absolute Maximum Ratings(Tc=25°C)

Parameter	Symbol	Conditions	Limits	Unit	
Repetitive peak reverse voltage	V_{RM}	Duty ≤ 0.5	430	V	
Reverse voltage	V_R	Direct voltage	430	V	
Average rectified forward current	I_o	60Hz half sin wave , Resistive load	$T_c=26^\circ\text{C}$	20	A
Forward current surge peak	I_{FSM}	60Hz half sin wave , Non-repetitive at $T_j=25^\circ\text{C}$ (*)	100	A	
Junction temperature	T_j		150	$^\circ\text{C}$	
Storage temperature	T_{stg}		-55 to +150	$^\circ\text{C}$	

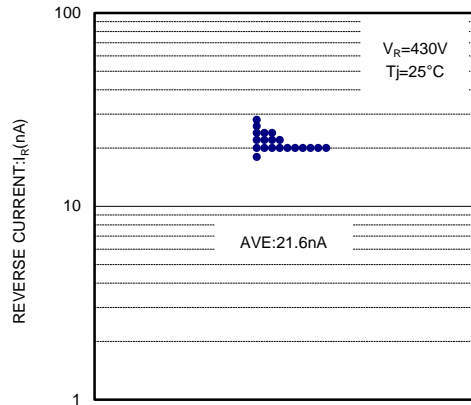
(*) 1-3pin common circuit

●Electrical Characteristics(Tj=25°C)

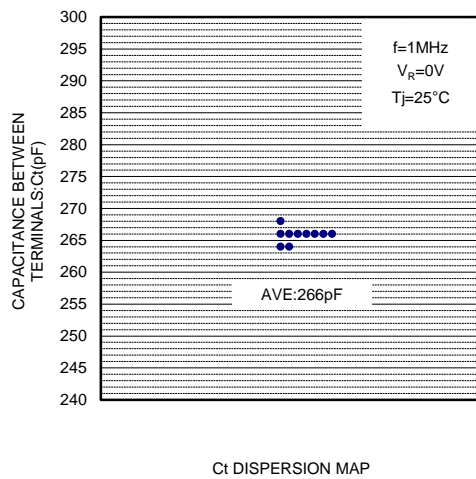
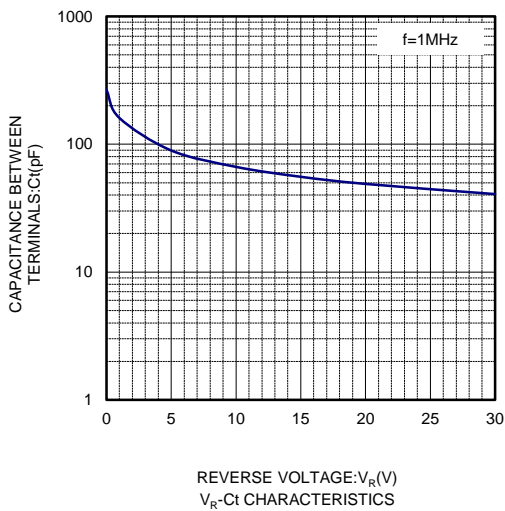
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=20\text{A}$	—	1.5	1.7	V
Reverse current	I_R	$V_R=430\text{V}$	—	0.05	10	μA
Reverse recovery time	t_{rr}	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25 \times I_R$	—	18	25	ns
Thermal resistance	$R_{th(j-c)}$	Junction to case	—	—	3.0	$^\circ\text{C/W}$



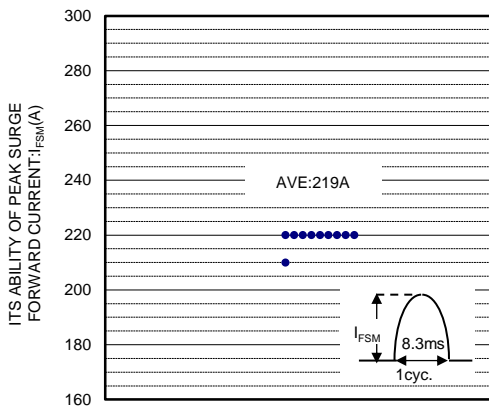
V_F DISPERSION MAP



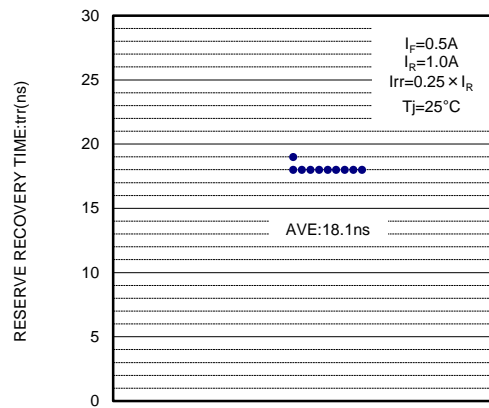
I_R DISPERSION MAP



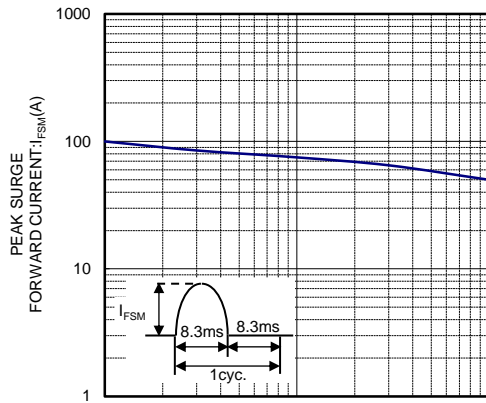
C_t DISPERSION MAP



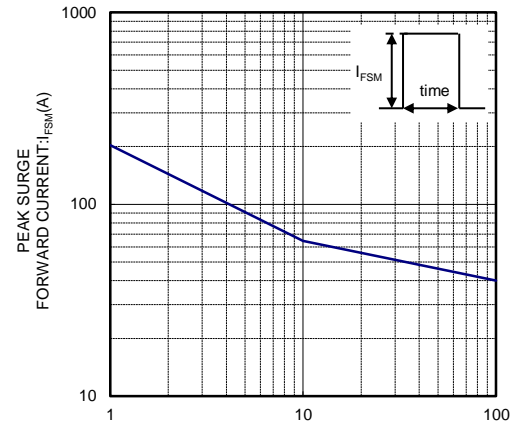
I_{FSM} DISPERSION MAP



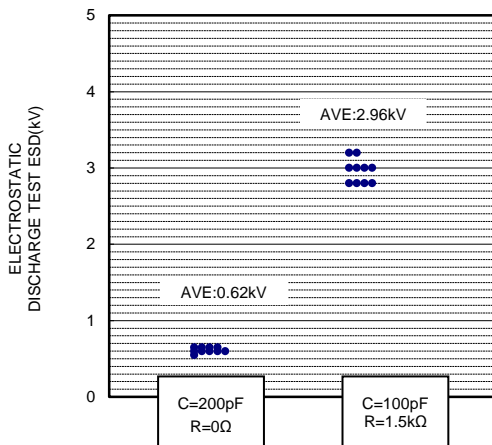
t_{rr} DISPERSION MAP



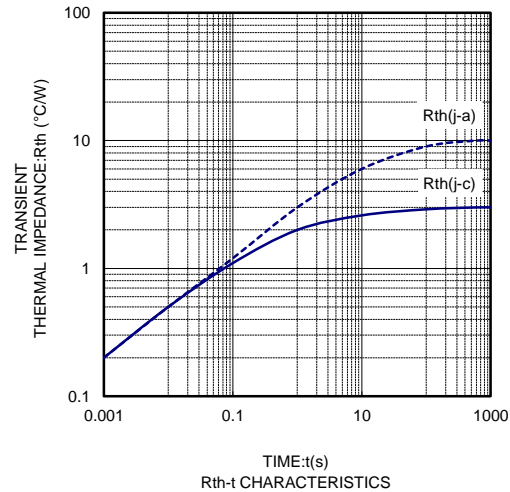
NUMBER OF CYCLES
 I_{FSM} -CYCLE CHARACTERISTICS



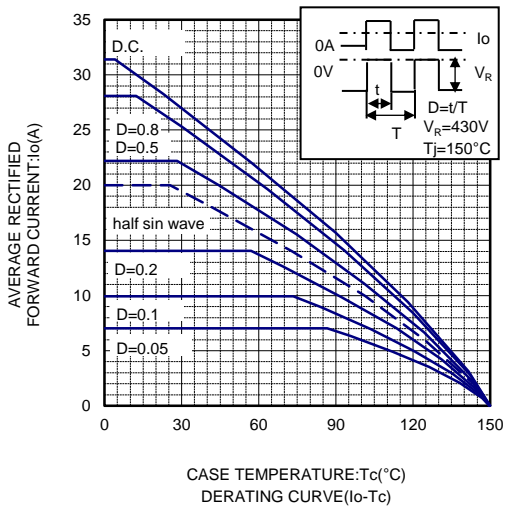
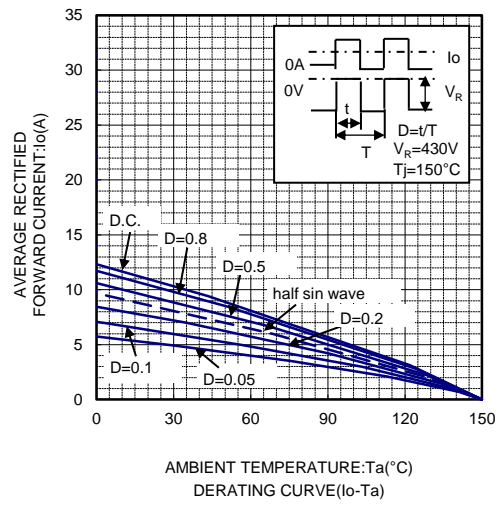
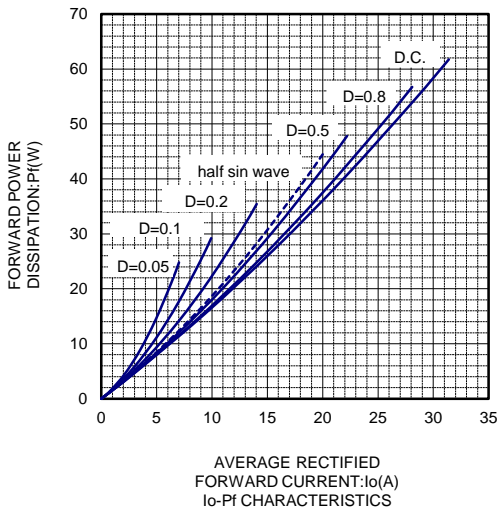
TIME: t (ms)
 I_{FSM} - t CHARACTERISTICS



ESD DISPERSION MAP



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



Notes

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