

### ●Serie

Standard Fast Recovery

### ●Application

General rectification

For PFC

(CCM : Continuous Current Mode)

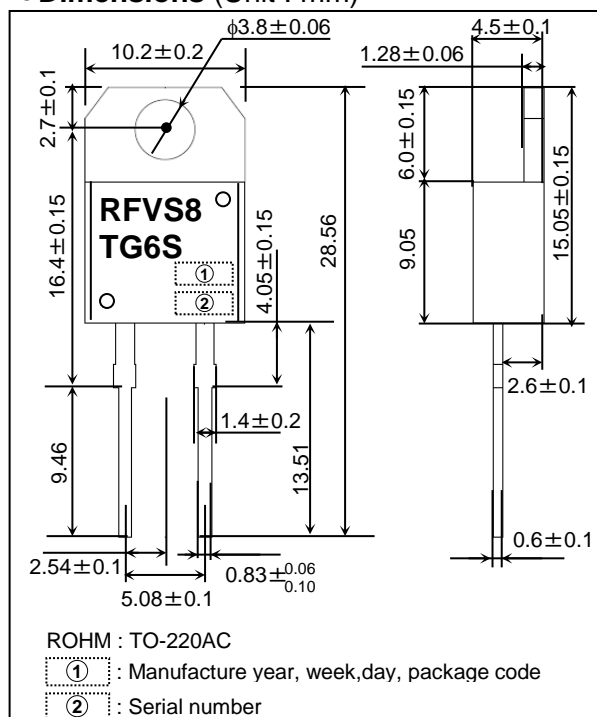
### ●Features

- 1) Hyper fast recovery / Hard recovery type
- 2) Ultra low switching loss
- 3) High current overload capacity

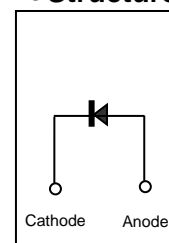
### ●Construction

Silicon epitaxial planar type

### ●Dimensions (Unit : mm)



### ●Structure



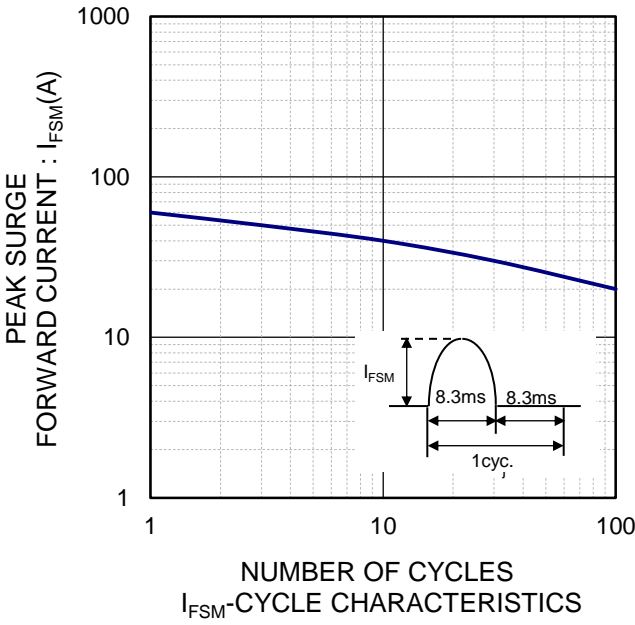
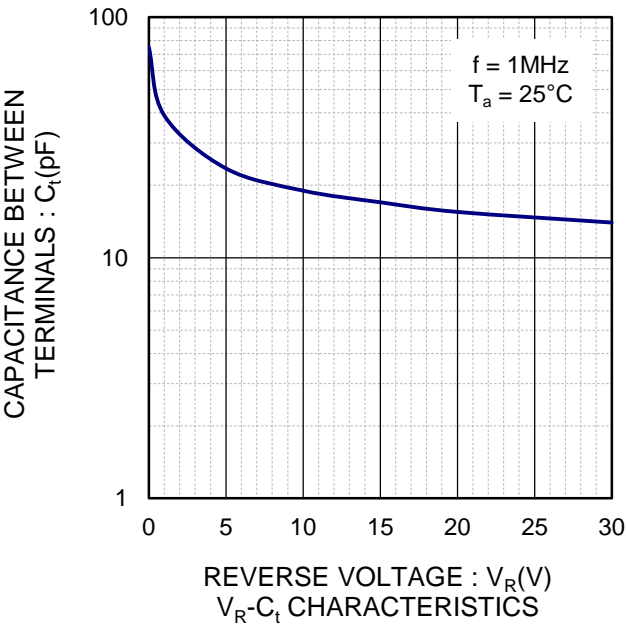
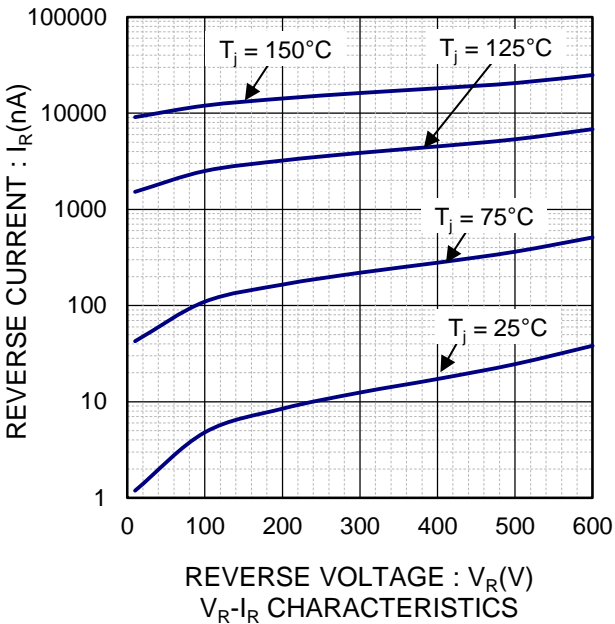
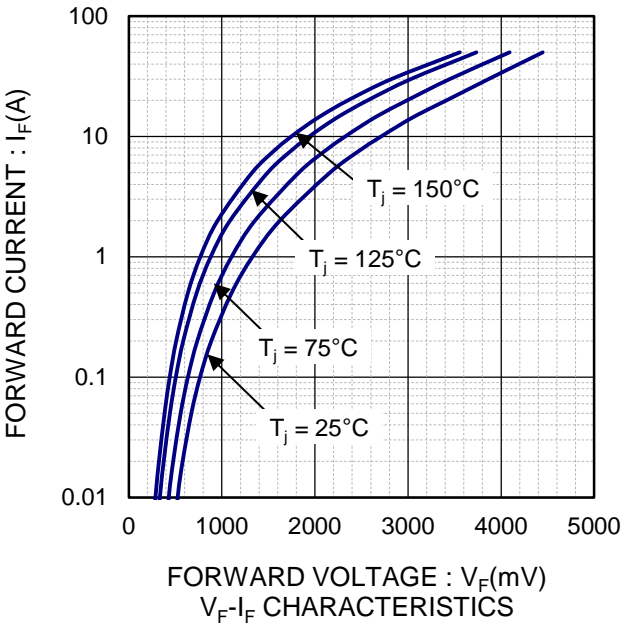
### ●Absolute Maximum Ratings ( $T_a=25^{\circ}\text{C}$ )

Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	$V_{RM}$	Duty $\leq 0.5$	600	V
Reverse voltage	$V_R$	Direct reverse voltage	600	V
Average current	$I_o$	60Hz half sin wave , resistive load	8	A
Non-repetitive forward surge current	$I_{FSM}$	60Hz half sin wave, one cycle, non-repetitive at $T_j=25^{\circ}\text{C}$	60	A
Operating junction temperature	$T_j$	-	150	$^{\circ}\text{C}$
Storage temperature	$T_{stg}$	-	-55 to +150	$^{\circ}\text{C}$

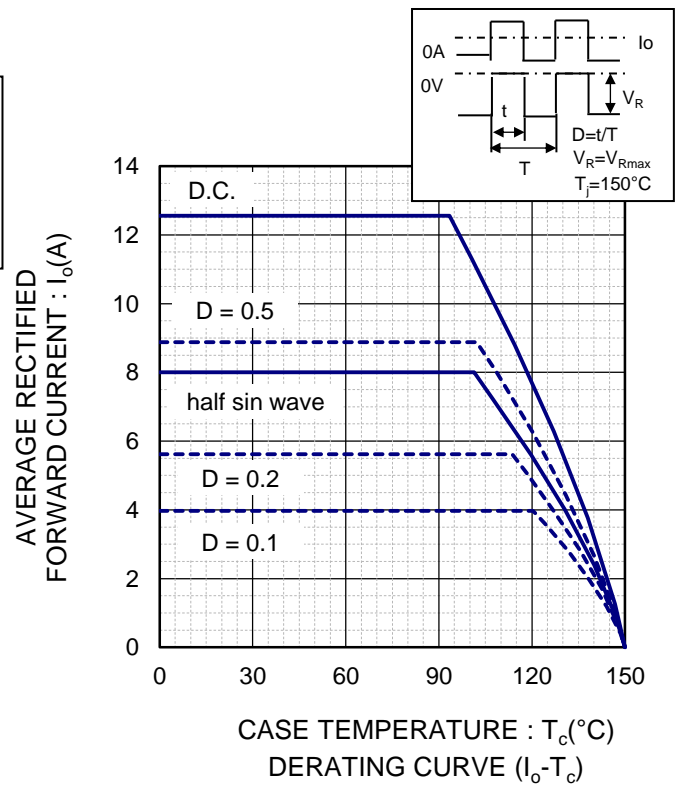
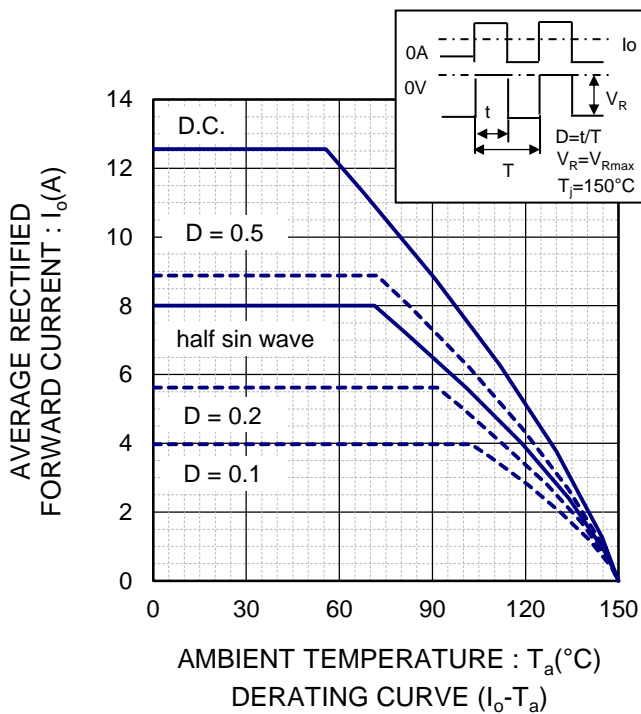
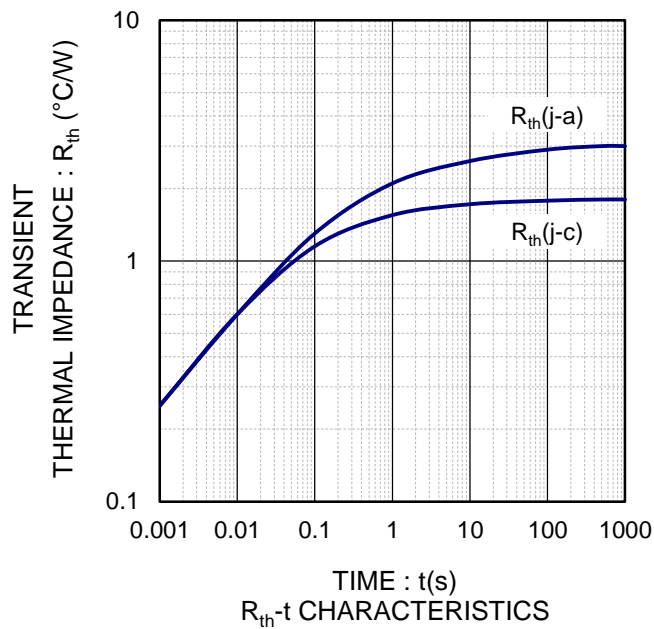
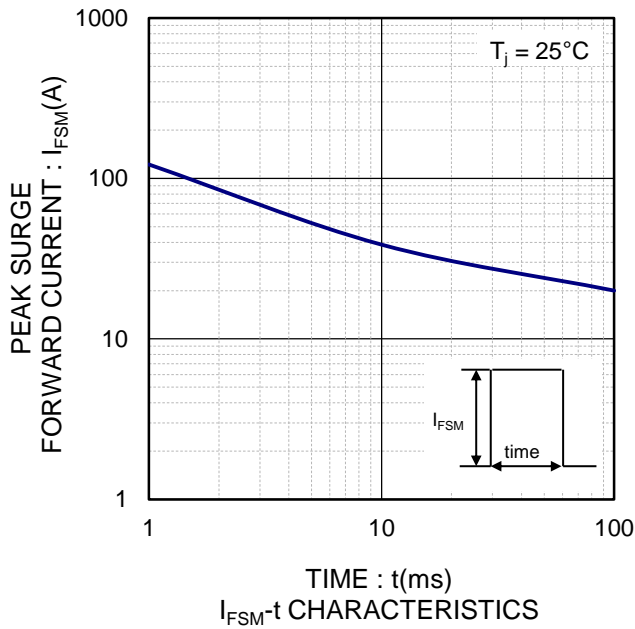
### ●Electrical Characteristics ( $T_j=25^{\circ}\text{C}$ )

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F=8A$	$T_j=25^{\circ}C$	1.6	2.5	3.0	V
			$T_j=125^{\circ}C$	-	1.8	-	V
Reverse current	$I_R$	$V_R=600V$	$T_j=25^{\circ}C$	-	0.03	10	$\mu A$
			$T_j=125^{\circ}C$	-	5	200	$\mu A$
Reverse recovery time	$t_{rr}$	$I_F=0.5A, I_R=1A, I_{rr}=0.25\times I_R$		-	12	20	ns
		$I_F=8A, V_R=400V, dI_F/dt=-200A/\mu s$		-	20	40	ns
Reverse recovery current	$I_{Rp}$	$I_F=8A, V_R=400V$	$T_j=125^{\circ}C$	-	5.0	-	A
Reverse recovery charges	$Q_{rr}$	$dI_F/dt=-200A/\mu s$		-	145	-	nC
Forward recovery time	$t_{fr}$	$I_F=8A, dI_F/dt=100A/\mu s,$		-	110	-	ns
Forward recovery voltage	$V_{Fp}$	$V_{FR}=1.1\times V_{Fmax}$		-	4.5	-	V
Thermal resistance	$R_{th(j-a)}$	Junction to ambient		-	-	3.0	$^{\circ}C/W$
	$R_{th(j-c)}$	Junction to case		-	-	1.8	$^{\circ}C/W$

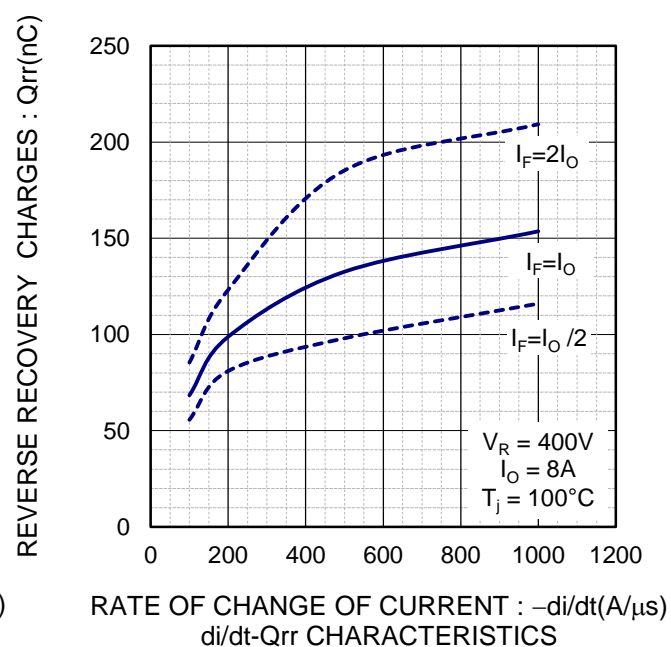
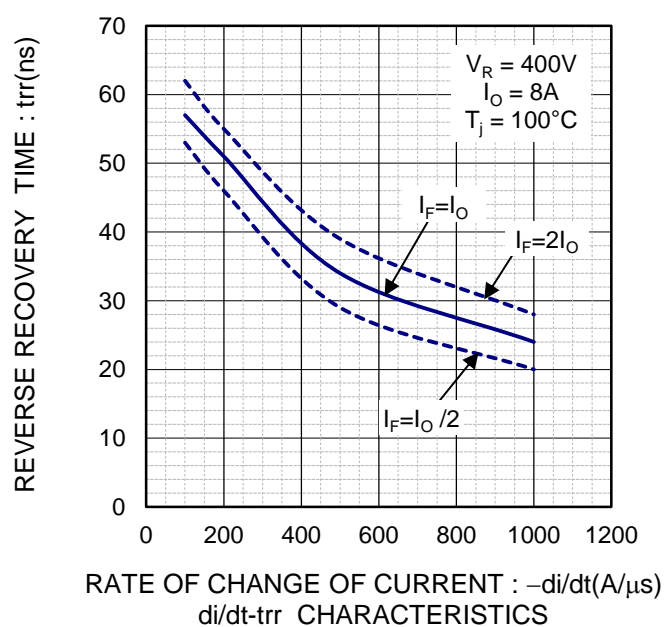
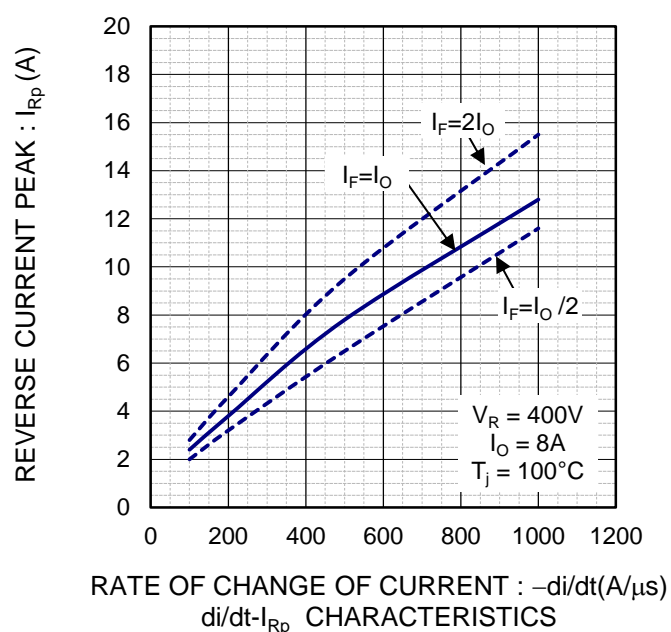
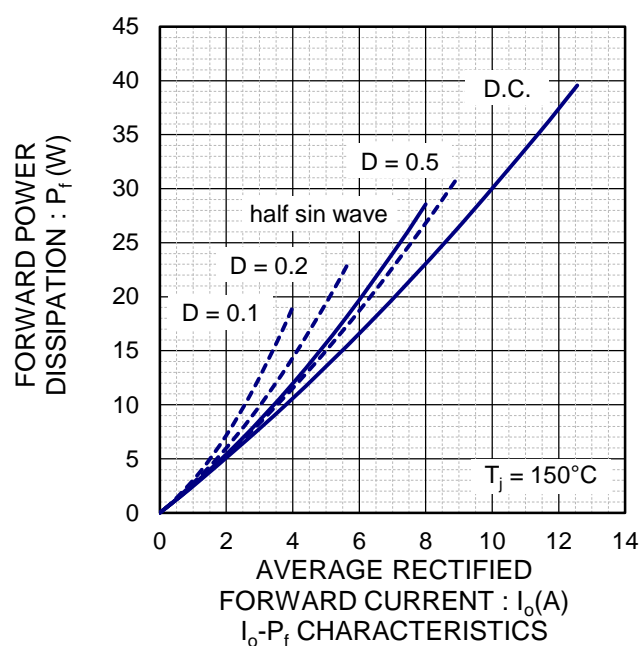
●Electrical Characteristic Curves



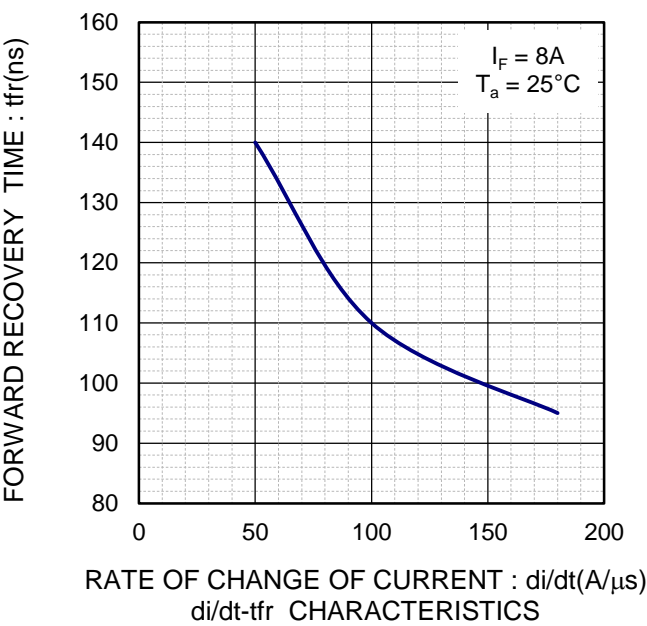
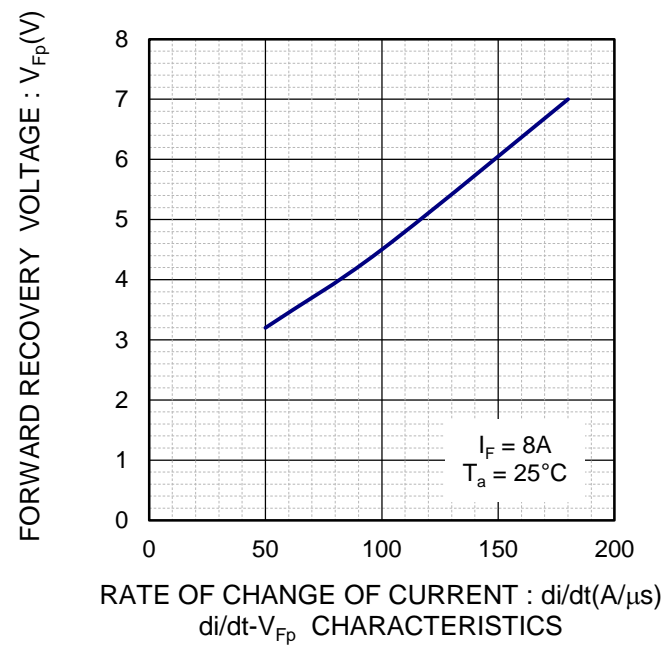
●Electrical characteristic curves



### ●Electrical characteristic curves



●Electrical characteristic curves



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