

●Serise

Standard Fast Recovery

●Application

General rectification

For PFC

(DCM : Discontinuous Current Mode)

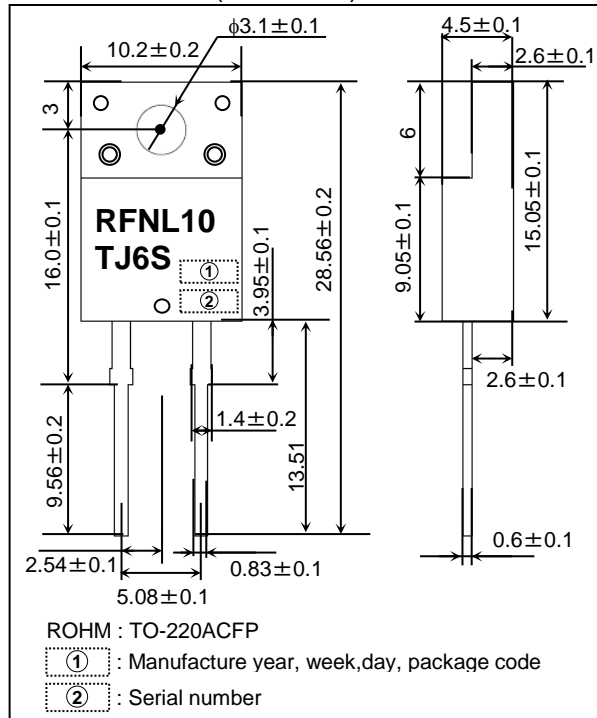
●Features

- 1) Ultra low forward voltage
- 2) Low switching loss
- 3) High current overload capacity

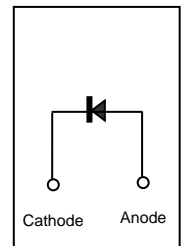
●Construction

Silicon epitaxial planar type

●Dimensions (Unit : mm)



●Structure



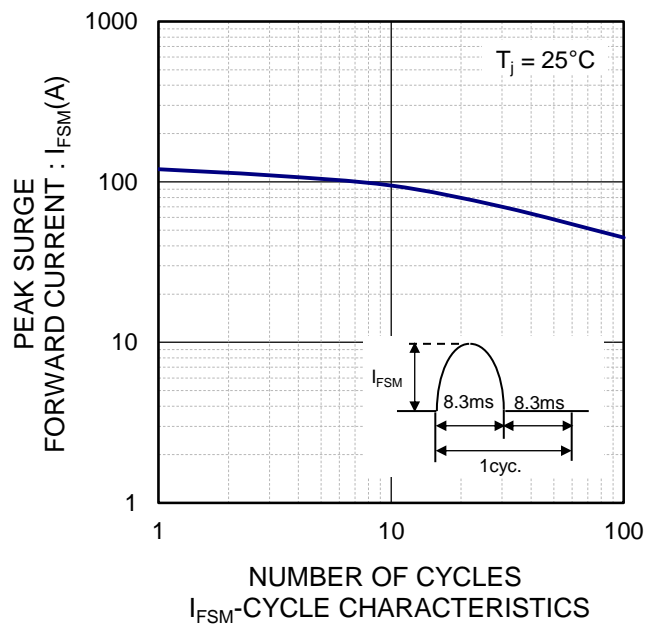
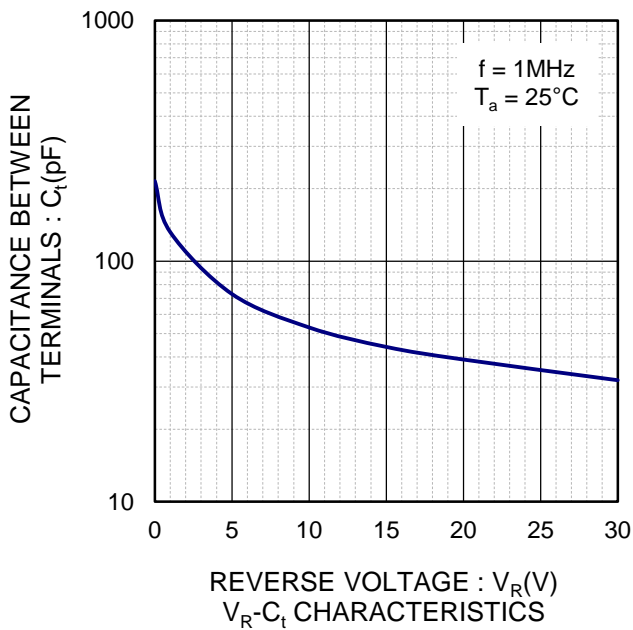
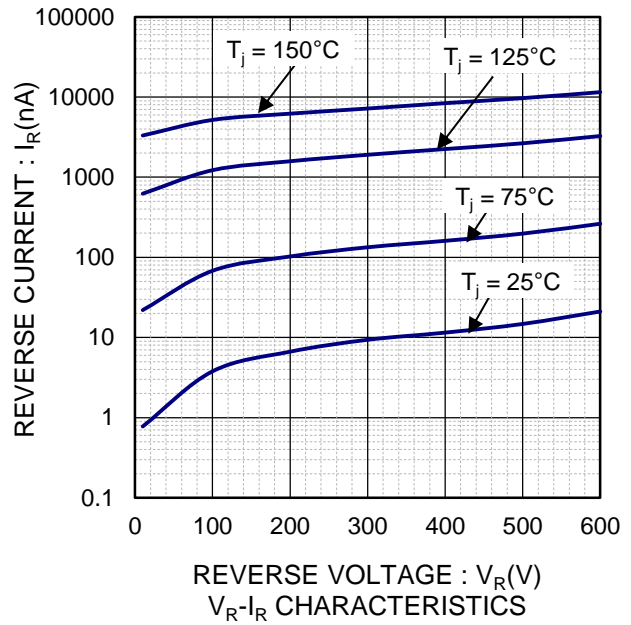
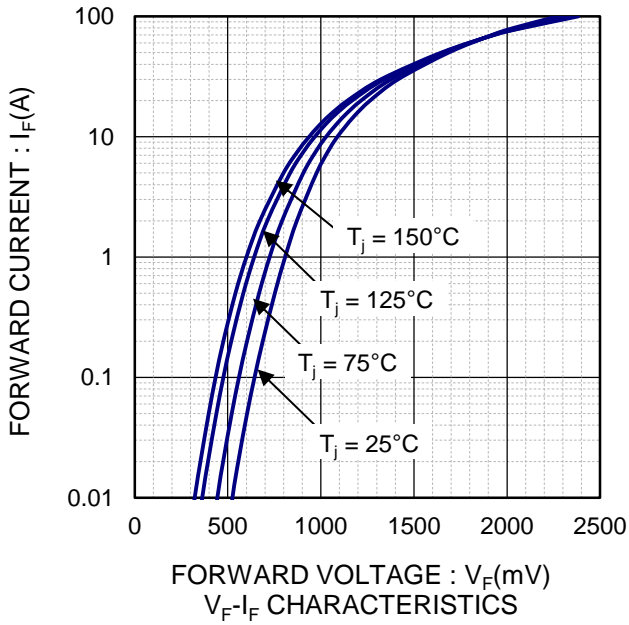
●Absolute Maximum Ratings (T_a= 25°C)

Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V _{RM}	Duty ≤ 0.5	600	V
Reverse voltage	V _R	Direct reverse voltage	600	V
Average current	I _o	60Hz half sin wave , resistive load	10	A
Non-repetitive forward surge current	I _{FSM}	60Hz half sin wave, one cycle, non-repetitive at T _j =25°C	120	A
Operating junction temperature	T _j	-	150	°C
Storage temperature	T _{stg}	-	-55 to +150	°C

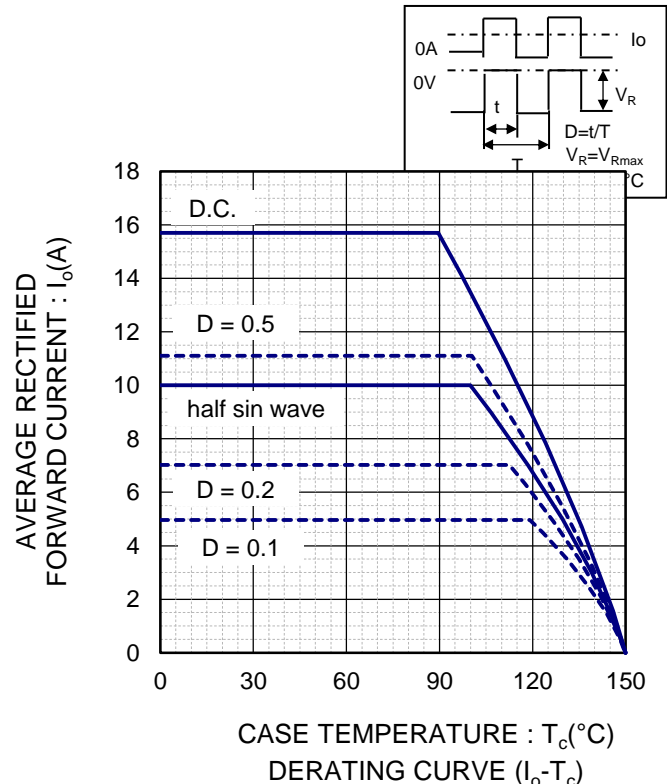
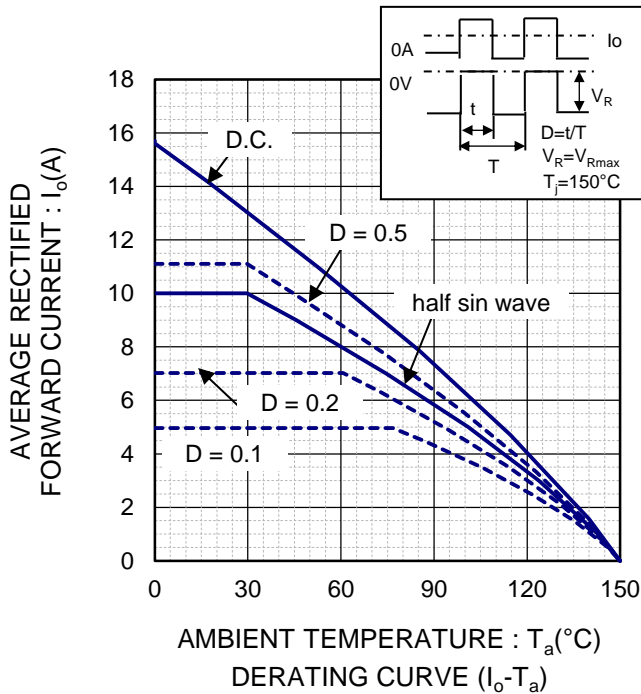
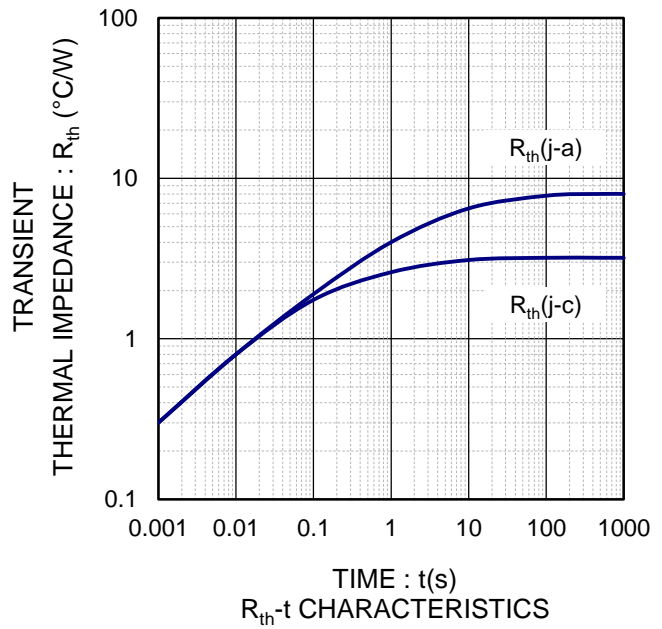
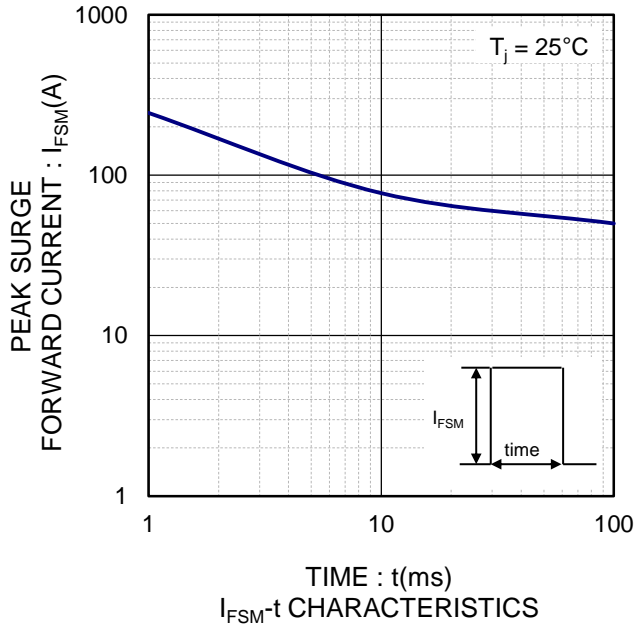
●Electrical Characteristics (T_j = 25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Forward voltage	V _F	I _F =8A	T _j =25°C	0.85	1.05	1.25	V
			T _j =125°C	-	0.9	-	V
		I _F =10A	T _j =25°C	0.9	1.1	1.3	V
			T _j =125°C	-	0.95	-	V
Reverse current	I _R	V _R =600V	T _j =25°C	-	0.03	10	μA
			T _j =125°C	-	3	200	μA
Reverse recovery time	trr	I _F =0.5A, I _R =1A, I _{rr} =0.25×I _R	-	45	65	ns	
		I _F =10A, V _R =400V, dI _F /dt=-100A/μs	-	100	150	ns	
Forward recovery time	tfr	I _F =10A, dI _F /dt=100A/μs,	-	180	-	ns	
Forward recovery voltage	V _{FP}	V _{FR} =1.1×V _{Fmax}	-	3.3	-	V	
Thermal resistance	R _{th(j-a)}	Junction to ambient	-	-	8.0	°C/W	
	R _{th(j-c)}	Junction to case	-	-	3.2	°C/W	

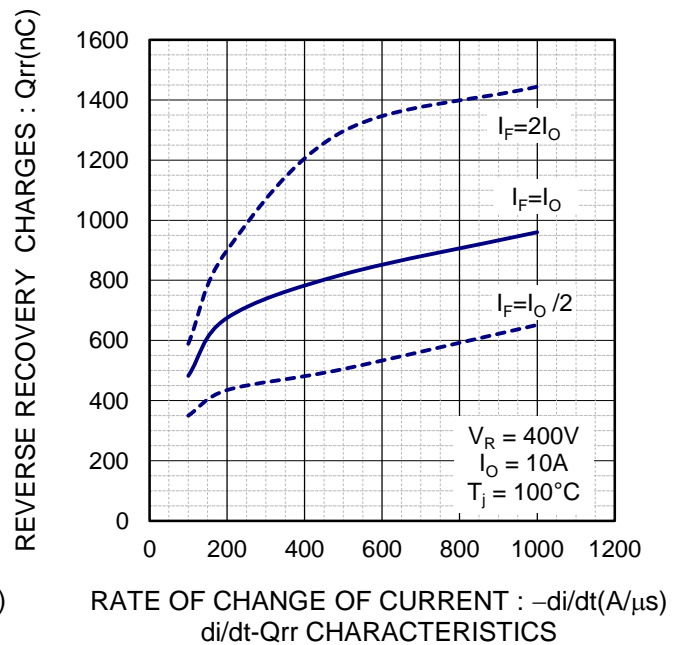
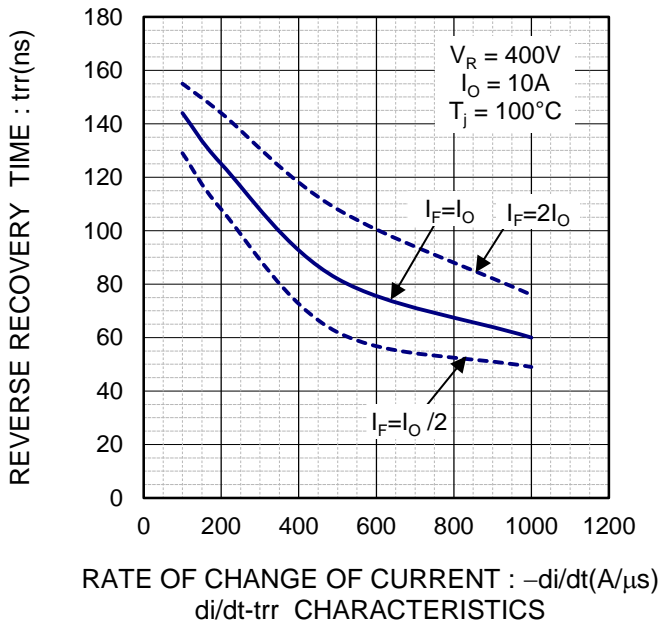
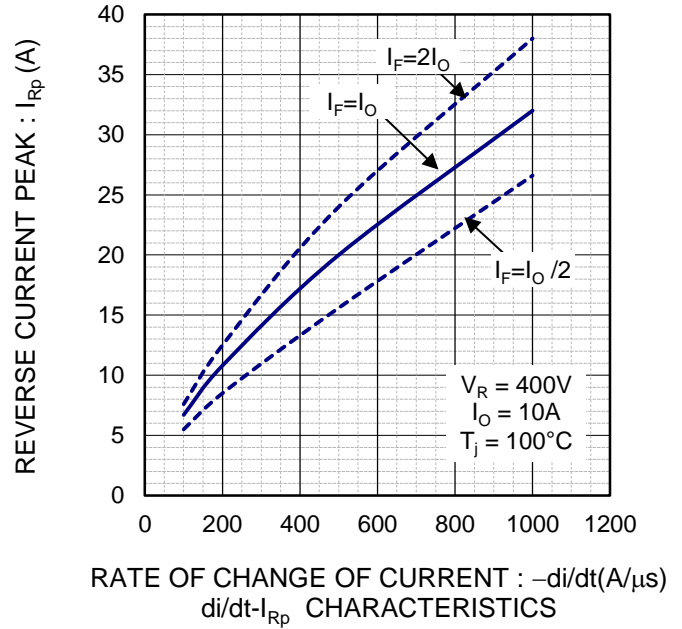
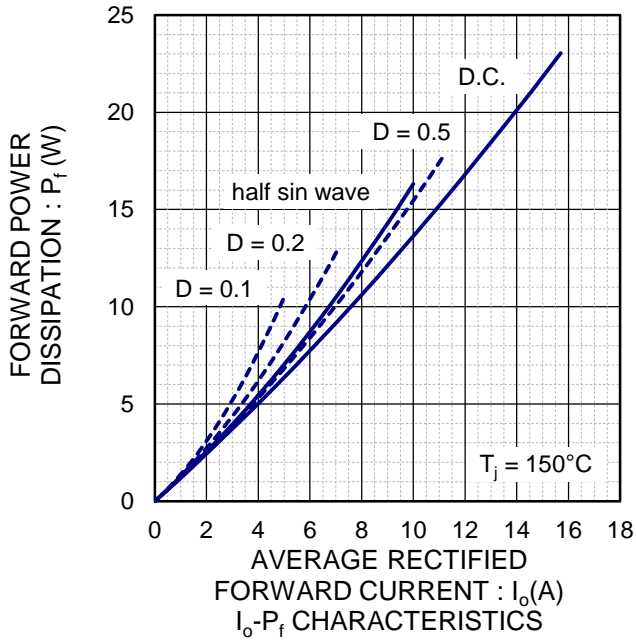
●Electrical Characteristic Curves



●Electrical characteristic curves



●Electrical characteristic curves



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