

Thyristor Medium Power Use

> REJ03G0387-0100 Rev.1.00 Aug.06.2004

Features

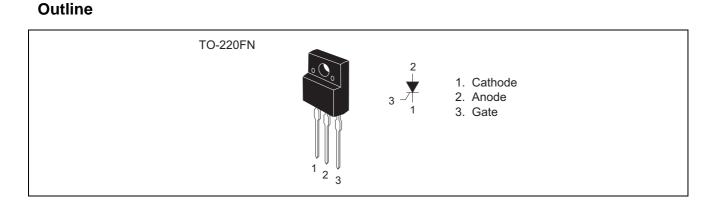
- $I_{T(AV)}$: 6 A
- V_{DRM} : 600 V
- I_{GT} : 10 mA
- Viso : 2000 V

Planar Passivation TypeUL Recognized : Yellow Card No. E223904

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Insulated Type

File No. E80271



Applications

Switching mode power supply, regulator for autocycle, motor control, heater control, and other general purpose control applications

Maximum Ratings

Parameter	Symbol	Voltage class	Unit
	Symbol	12	
Repetitive peak reverse voltage	V _{RRM}	600	V
Non-repetitive peak reverse voltage	V _{RSM}	720	V
DC reverse voltage	V _{R (DC)}	480	V
Repetitive peak off-state voltage	V _{DRM}	600	V
DC off-state voltage	V _{D (DC)}	480	V

CR6KM-12A

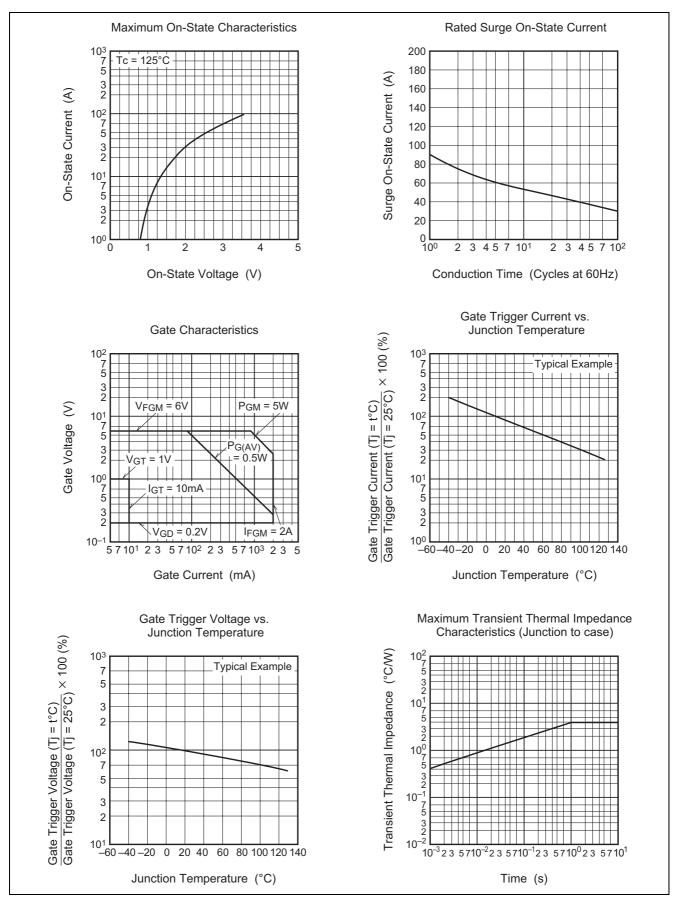
Parameter	Symbol	Ratings	Unit	Conditions	
RMS on-state current	I _{T (RMS)}	9.4	А		
Average on-state current	I _{T (AV)}	6	A	Commercial frequency, sine half wave 180° conduction, Tc = 85°C	
Surge on-state current	I _{TSM}	90	A	60Hz sine half wave 1 full cycle, peak value, non-repetitive	
I ² t for fusing	l ² t	34	A ² s	Value corresponding to 1 cycle of hal wave 60Hz, surge on-state current	
Peak gate power dissipation	P _{GM}	5	W		
Average gate power dissipation	P _{G (AV)}	0.5	W		
Peak gate forward voltage	V _{FGM}	6	V		
Peak gate reverse voltage	V _{RGM}	10	V		
Peak gate forward current	I _{FGM}	2	А		
Junction temperature	Tj	- 40 to +125	°C		
Storage temperature	Tstg	- 40 to +125	°C		
Mass	_	2.0	g	Typical value	
Isolation voltage	Viso	2000	V	Ta = 25°C, AC 1 minute, each terminal to case	

Electrical Characteristics

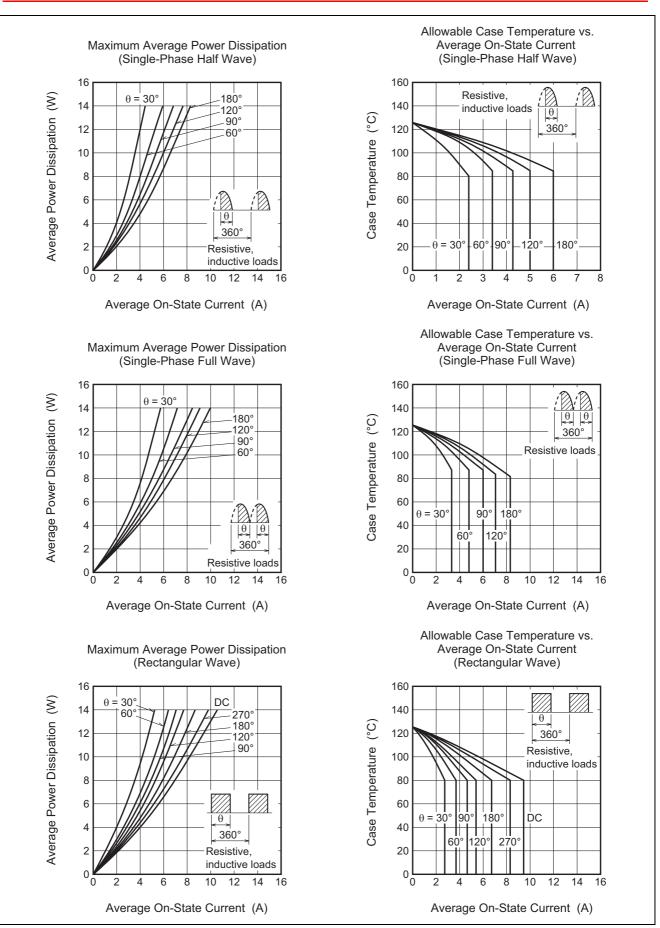
Parameter	Symbol	Minimum Characteristics Value		Unit	Test conditions	
		Min.	Тур.	Max.		
Repetitive peak reverse current	I _{RRM}	—		2.0	mA	Tj = 125°C, V _{RRM} applied
Repetitive peak off-state current	I _{DRM}	—		2.0	mA	Tj = 125°C, V _{DRM} applied
On-state voltage	V _{TM}	—		1.7	V	$Tc = 25^{\circ}C, I_{TM} = 20 A,$
						instantaneous value
Gate trigger voltage	V_{GT}	—		1.0	V	$Tj = 25^{\circ}C, V_D = 6 V, I_T = 1 A$
Gate non-trigger voltage	V _{GD}	0.2	_	_	V	$Tj = 125^{\circ}C, V_D = 1/2 V_{DRM}$
Gate trigger current	I _{GT}	—		10	mA	$Tj = 25^{\circ}C, V_D = 6 V, I_T = 1 A$
Holding current	I _H	_	15	_	mA	$Tj = 25^{\circ}C, V_{D} = 12 V$
Thermal resistance	R _{th (j-c)}	_	_	4.0	°C/W	Junction to case ^{Note1}

Notes: 1. The contact thermal resistance $R_{th (c-f)}$ in case of greasing is 0.5°C/W.

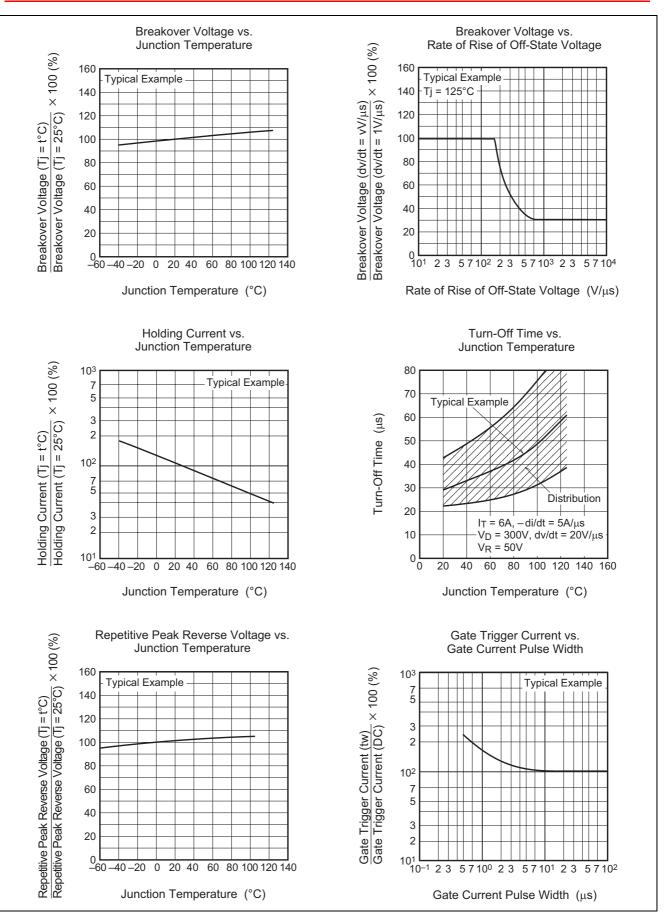
Performance Curves





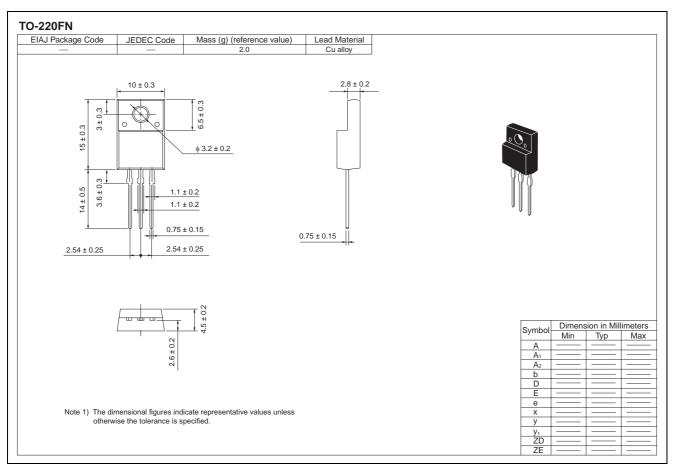






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Package Dimensions



Order Code

Lead form	Standard packing	Quantity	Standard order code	Standard order code example
Straight type	Plastic Magazine (Tube)	50	Type name	CR6KM-12A
Lead form	Plastic Magazine (Tube)	50	Type name – Lead forming code	CR6KM-12A-A8

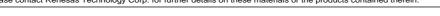
Note : Please confirm the specification about the shipping in detail.

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