

CR2PM-8UE

400V - 2A - Thyristor
Low Power Use

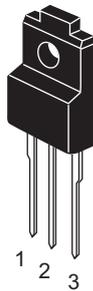
R07DS1160EJ0200
Rev.2.00
Dec 24, 2014

Features

- $I_{T(AV)}$: 2 A
- V_{DRM} : 400 V
- I_{GT} : 100 μ A
- Planar Type

Outline

RENESAS Package code: PRSS0003AA-B
(Package name: TO-220F(2))



1. Cathode
2. Anode
3. Gate

Maximum Ratings

Parameter	Symbol	Voltage class	Unit
		8	
Repetitive peak reverse voltage	V_{RRM}	400	V
Non-repetitive peak reverse voltage	V_{RSM}	500	V
Repetitive peak off-state voltage ^{Note1}	V_{DRM}	400	V

Notes: 1. With gate to cathode resistance $R_{CK} = 1 \text{ k}\Omega$

Parameter	Symbol	Ratings	Unit	Conditions
RMS on-state current	$I_{T(RMS)}$	4	A	
Average on-state current	$I_{T(AV)}$	2	A	Commercial frequency, sine half wave 180° conduction, $T_c = 98^\circ\text{C}$
Surge on-state current	I_{TSM}	20	A	60Hz sine half wave, 1full cycle, peak value, non-repetitive
I^2t for fusing	I^2t	1.7	A^2s	Value corresponding to 1cycle of half wave 60Hz, surge on-state current
Peak gate power dissipation	P_{GM}	0.5	W	
Average gate power dissipation	$P_{G(AV)}$	0.1	W	
Peak gate forward voltage	V_{FGM}	6	V	
Peak gate reverse voltage	V_{RGM}	6	V	
Peak gate forward current	I_{FGM}	0.2	A	
Junction temperature	T_j	- 40 to +125	$^\circ\text{C}$	
Storage temperature	T_{stg}	- 40 to +125	$^\circ\text{C}$	
Mass	—	2.0	g	Typical value

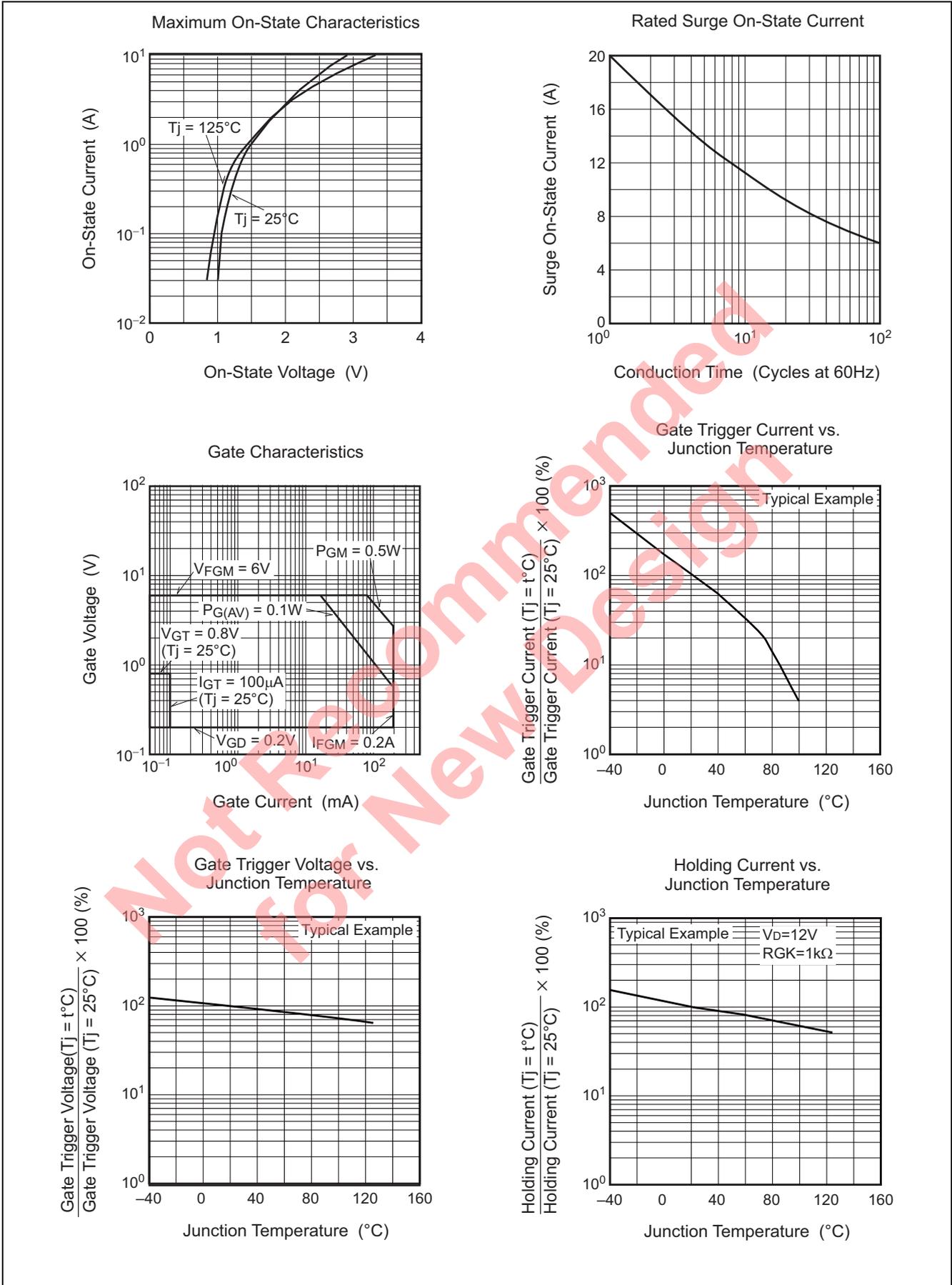
Electrical Characteristics

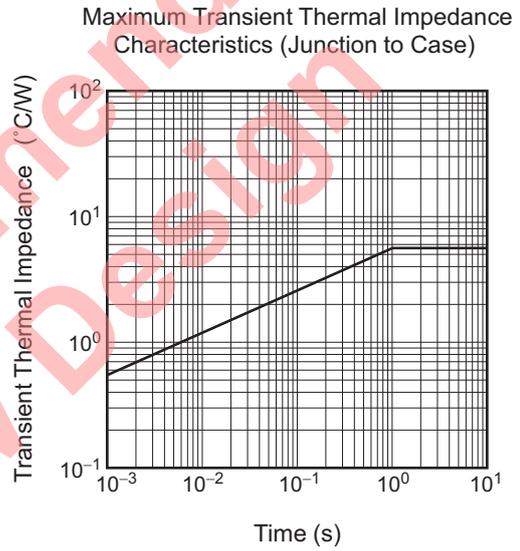
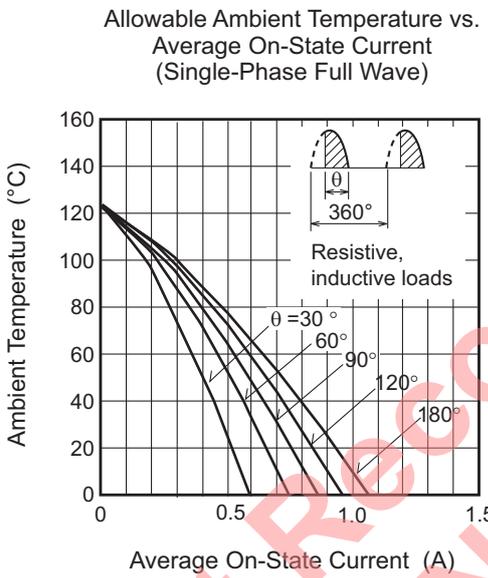
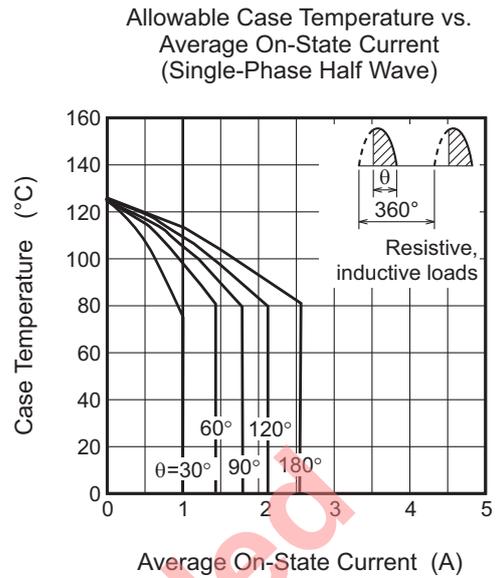
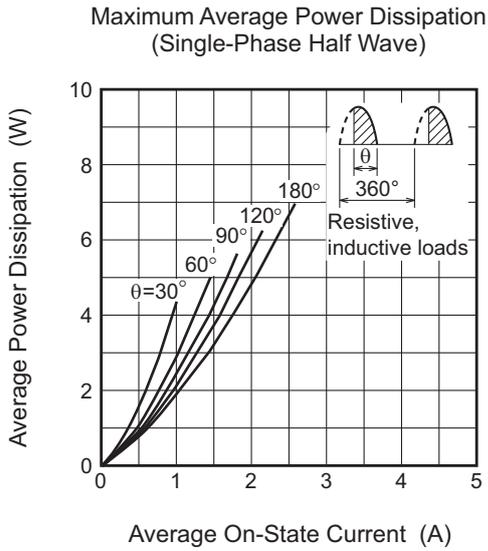
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Repetitive peak reverse current	I_{RRM}	—	—	0.1	mA	$T_j = 125^\circ\text{C}$, V_{RRM} applied $R_{GK} = 1\text{ k}\Omega$
Repetitive peak off-state current	I_{DRM}	—	—	0.1	mA	$T_j = 125^\circ\text{C}$, V_{DRM} applied $R_{GK} = 1\text{ k}\Omega$
On-state voltage	V_{TM}	—	—	2.2	V	$T_j = 25^\circ\text{C}$, $I_{TM} = 4\text{ A}$ instantaneous value
Gate trigger voltage	V_{GT}	—	—	0.8	V	$T_j = 25^\circ\text{C}$, $V_D = 6\text{ V}$, $I_T = 0.1\text{ A}$
Gate non-trigger voltage	V_{GD}	0.2	—	—	V	$T_j = 125^\circ\text{C}$, $V_D = 1/2 V_{DRM}$ $R_{GK} = 1\text{ k}\Omega$
Gate trigger current	I_{GT}	1	—	100	μA	$T_j = 25^\circ\text{C}$, $V_D = 6\text{ V}$, $I_T = 0.1\text{ A}$
Holding current	I_H	—	—	3.0	mA	$T_j = 25^\circ\text{C}$, $V_D = 12\text{ V}$ $R_{GK} = 1\text{ k}\Omega$
Thermal resistance	$R_{th(j-c)}$	—	—	5.6	$^\circ\text{C/W}$	Junction to case ^{Note2}

Notes: 2. The contact thermal resistance $R_{th(c-f)}$ in case of greasing is 0.5°C/W .

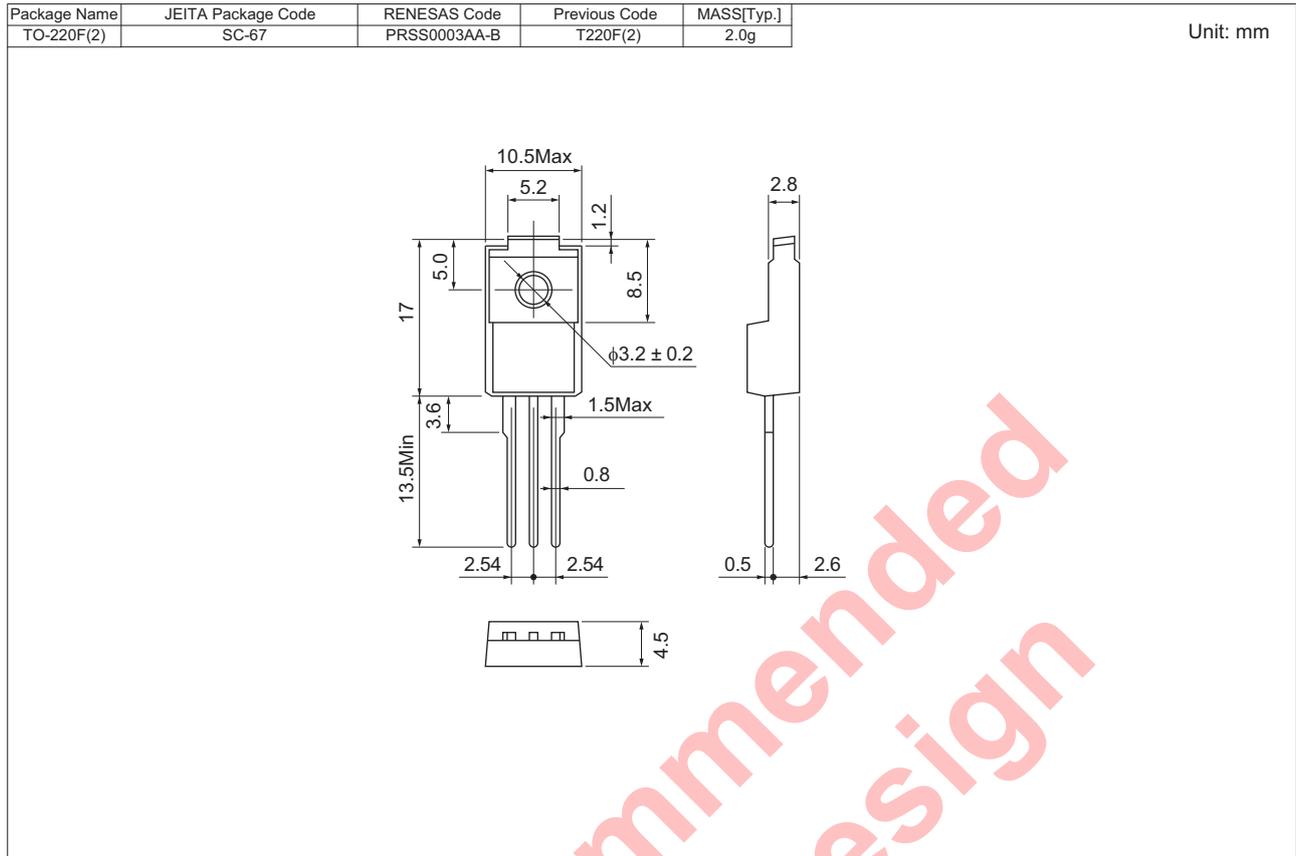
Not Recommended
for New Design

Performance Curves





Package dimensions



Ordering Information

Orderable Part Number	Packing	Quantity	Remark
CR2PM-8UE#B00	Bag	100 pcs.	Straight type
CR2PM-8UE-□□#B00	Tube	50 pcs.	□□:Lead forming type

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

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