

CR3AS-8ME

400V - 3A - Thyristor
Low Power Use

R07DS1230EJ0100
Rev.1.00
Oct 14, 2014

Features

- $I_{T(AV)}$: 3 A
- V_{DRM} : 400 V
- I_{GT} : 30 mA
- Non-Insulated Type
- Planar Type

Outline

RENESAS Package code: PRSS0004ZG-A
(Package name: MP-3A)



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

Parameter	Symbol	Ratings	Unit	Conditions
RMS on-state current	$I_{T(RMS)}$	4.7	A	
Average on-state current	$I_{T(AV)}$	3	A	Commercial frequency, sine half wave 180° conduction, $T_c = 95^\circ\text{C}$
Surge on-state current	I_{TSM}	70	A	60Hz sine half wave, 1full cycle, peak value, non-repetitive
I^2t for fusing	I^2t	20	A^2s	Value corresponding to 1cycle of half wave 60Hz, surge on-state current
Peak gate power dissipation	P_{GM}	3	W	
Average gate power dissipation	$P_{G(AV)}$	0.5	W	
Peak gate forward voltage	V_{FGM}	10	V	
Peak gate reverse voltage	V_{RGM}	10	V	
Peak gate forward current	I_{FGM}	0.5	A	
Junction temperature	T_j	- 40 to +125	$^\circ\text{C}$	
Storage temperature	T_{stg}	- 40 to +125	$^\circ\text{C}$	
Mass	—	0.32	g	Typical value

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Repetitive peak reverse current	I_{RRM}	—	—	2.5	mA	$T_j = 125^\circ\text{C}$, V_{RRM} applied
Repetitive peak off-state current	I_{DRM}	—	—	2.5	mA	$T_j = 125^\circ\text{C}$, V_{DRM} applied
On-state voltage	V_{TM}	—	—	2.0	V	$T_j = 25^\circ\text{C}$, $I_{TM} = 3\text{ A}$ instantaneous value
Gate trigger voltage	V_{GT}	—	—	2.0	V	$T_j = 25^\circ\text{C}$, $V_D = 6\text{ V}$, $I_T = 1\text{ A}$
Gate non-trigger voltage	V_{GD}	0.2	—	—	V	$T_j = 125^\circ\text{C}$, $V_D = 1/2 V_{DRM}$
Gate trigger current	I_{GT}	1	—	30	mA	$T_j = 25^\circ\text{C}$, $V_D = 6\text{ V}$, $I_T = 1\text{ A}$
Holding current	I_H	—	30	—	mA	$T_j = 25^\circ\text{C}$, $V_D = 12\text{ V}$
Thermal resistance	$R_{th(j-c)}$	—	—	2.8	$^\circ\text{C/W}$	Junction to case ^{Note1}

Notes: 1. The measurement point for case temperature is at anode tab.

Package dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]	Unit: mm
MP-3A	SC-63	PRSS0004ZG-A	TMP3	0.32g	

Ordering Information

Orderable Part Number	Packing	Quantity	Remark
CR3AS-8ME#B00	Tube	75 pcs.	
CR3AS-8ME-T13#B00	Embossed Tape	3000 pcs.	Taping direction "T1"

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

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