

# CR3AS-8ME

400V - 3A - Thyristor Low Power Use R07DS1230EJ0100 Rev.1.00 Oct 14, 2014

### **Features**

• I<sub>GT</sub>: 30 mA

• Non-Insulated Type

Planar Type

### **Outline**

RENESAS Package code: PRSS0004ZG-A

(Package name: MP-3A)



2, 4

1. Cathode

2. Anode

3. Gate

4. Anode

# **Maximum Ratings**

Parameter	Symbol	Voltage class 8	Unit
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

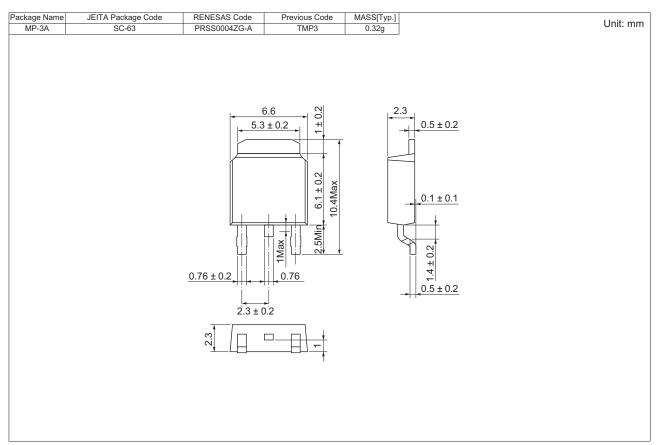
Parameter	Symbol	Ratings	Unit	Conditions
RMS on-state current	I <sub>T(RMS)</sub>	4.7	Α	
Average on-state current	I <sub>T(AV)</sub>	3	А	Commercial frequency, sine half wave 180° conduction, Tc = 95°C
Surge on-state current	I <sub>TSM</sub>	70	A	60Hz sine half wave, 1full cycle, peak value, non-repetitive
I <sup>2</sup> t for fusing	l <sup>2</sup> t	20	A <sup>2</sup> s	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 <sub>G(AV)</sub>	0.5	W	
Peak gate forward voltage	$V_{FGM}$	10	V	
Peak gate reverse voltage	$V_{RGM}$	10	V	
Peak gate forward current	I <sub>FGM</sub>	0.5	Α	
Junction temperature	Tj	- 40 to +125	°C	
Storage temperature	Tstg	- 40 to +125	°C	
Mass	_	0.32	g	Typical value

### **Electrical Characteristics**

Parameter	Symbol	Min.	Тур.	Max.	Unit	Test conditions
Repetitive peak reverse current	I <sub>RRM</sub>	_	_	2.5	mA	Tj = 125°C, V <sub>RRM</sub> applied
Repetitive peak off-state current	I <sub>DRM</sub>	_	_	2.5	mA	Tj = 125°C, V <sub>DRM</sub> applied
On-state voltage	$V_{TM}$	_	_	2.0	V	Tj = 25°C, I <sub>TM</sub> = 3 A
						instantaneous value
Gate trigger voltage	$V_{GT}$	_	_	2.0	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 <sub>GT</sub>	1	_	30	mA	$Tj = 25^{\circ}C, V_D = 6 V, I_T = 1 A$
Holding current	I <sub>H</sub>	_	30	_	mA	Tj = 25°C, V <sub>D</sub> = 12 V
Thermal resistance	R <sub>th(j-c)</sub>	_	_	2.8	°C/W	Junction to case Note1

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

# **Package dimensions**



# **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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