


# BCR08AM-14

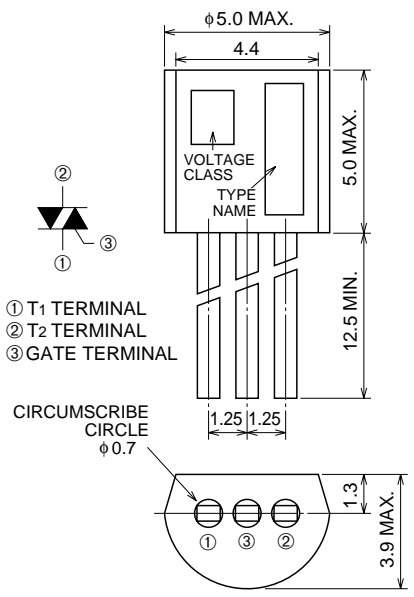
LOW POWER USE  
PLANAR PASSIVATION TYPE

**BCR08AM-14**



- IT (RMS) ..... 0.8A
- VDRM ..... 700V
- IFGT I , IRGT I , IRGT III ..... 5mA

**OUTLINE DRAWING** Dimensions in mm



① T1 TERMINAL  
② T2 TERMINAL  
③ GATE TERMINAL

CIRCUMSCRIBE CIRCLE  
φ 0.7

**JEDEC : TO-92**

## APPLICATION

Contactless AC switches, heating, refrigerator, washing machine, electric fan, vending machines, trigger circuit for low and medium triac, solid state relay, other general purpose control applications

## MAXIMUM RATINGS

Symbol	Parameter	Voltage class	
		14	Unit
VDRM	Repetitive peak off-state voltage*1	700	V
VDSM	Non-repetitive peak off-state voltage*1	840	V

Symbol	Parameter	Conditions	Ratings	Unit
IT (RMS)	RMS on-state current	Commercial frequency, sine full wave 360° conduction, Tc=67°C	0.8	A
ITSM	Surge on-state current	60Hz sinewave 1 full cycle, peak value, non-repetitive	8	A
I <sup>2</sup> <sub>t</sub>	I <sup>2</sup> <sub>t</sub> for fusing	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current	0.26	A <sup>2</sup> s
PGM	Peak gate power dissipation		1	W
PG (AV)	Average gate power dissipation		0.1	W
VGM	Peak gate voltage		6	V
IGM	Peak gate current		1	A
T <sub>j</sub>	Junction temperature		-40 ~ +125	°C
T <sub>stg</sub>	Storage temperature		-40 ~ +125	°C
—	Weight	Typical value	0.23	g

\*1. Gate open.

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## ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IDRM	Repetitive peak off-state current	T <sub>j</sub> =125°C, V <sub>DRM</sub> applied	—	—	1.0	mA
VTM	On-state voltage	T <sub>c</sub> =25°C, I <sub>TM</sub> =1.2A, Instantaneous measurement	—	—	2.0	V
VFGT I	Gate trigger voltage	T <sub>j</sub> =25°C, V <sub>D</sub> =6V, R <sub>L</sub> =6Ω, R <sub>G</sub> =330Ω	I	—	2.0	V
VRGT I			II	—	2.0	V
VRGT III			III	—	2.0	V
IFGT I	Gate trigger current	T <sub>j</sub> =25°C, V <sub>D</sub> =6V, R <sub>L</sub> =6Ω, R <sub>G</sub> =330Ω	I	—	5	mA
IRGT I			II	—	5	mA
IRGT III			III	—	5	mA
VGD	Gate non-trigger voltage	T <sub>j</sub> =125°C, V <sub>D</sub> =1/2V <sub>DRM</sub>	0.1	—	—	V
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case *3	—	—	50	°C/W
(dv/dt) <sub>c</sub>	Critical-rate of rise of off-state commutating voltage		*2	—	—	V/μs

\*2. The critical-rate of rise of the off-state commutating voltage is shown in the table below.  
\*3. Case temperature is measured at the T2 terminal 1.5mm away from the molded case.

Voltage class	V <sub>DRM</sub> (V)	(dv/dt) <sub>c</sub>		Test conditions	Commutating voltage and current waveforms (inductive load)
		Min.	Unit		
14	700	0.5	V/μs	1. Junction temperature T <sub>j</sub> =125°C 2. Rate of decay of on-state commutating current (di/dt) <sub>c</sub> =-0.4A/ms 3. Peak off-state voltage V <sub>D</sub> =400V	

## PERFORMANCE CURVES

