


BCR08AM-14

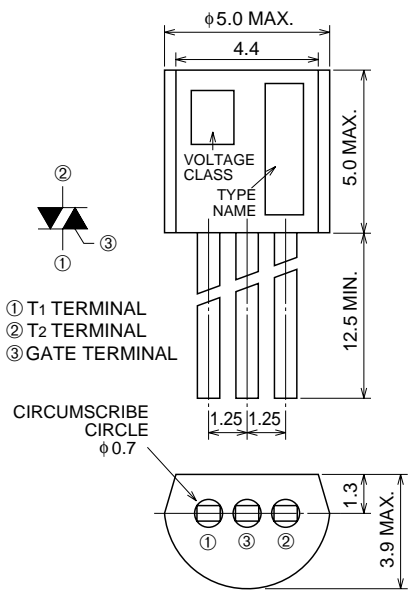
LOW POWER USE
PLANAR PASSIVATION TYPE

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 ² _t	I ² _t for fusing	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current	0.26	A ² 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 _j	Junction temperature		-40 ~ +125	°C
T _{stg}	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 _j =125°C, V _{DRM} applied	—	—	1.0	mA
VTM	On-state voltage	T _c =25°C, I _{TM} =1.2A, Instantaneous measurement	—	—	2.0	V
VFGT I	Gate trigger voltage	T _j =25°C, V _D =6V, R _L =6Ω, R _G =330Ω	I	—	2.0	V
VRGT I			II	—	2.0	V
VRGT III			III	—	2.0	V
IFGT I	Gate trigger current	T _j =25°C, V _D =6V, R _L =6Ω, R _G =330Ω	I	—	5	mA
IRGT I			II	—	5	mA
IRGT III			III	—	5	mA
VGD	Gate non-trigger voltage	T _j =125°C, V _D =1/2V _{DRM}	0.1	—	—	V
R _{th(j-c)}	Thermal resistance	Junction to case *3	—	—	50	°C/W
(dv/dt) _c	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 _{DRM} (V)	(dv/dt) _c		Test conditions	Commutating voltage and current waveforms (inductive load)
		Min.	Unit		
14	700	0.5	V/μs	1. Junction temperature T _j =125°C 2. Rate of decay of on-state commutating current (di/dt) _c =-0.4A/ms 3. Peak off-state voltage V _D =400V	

PERFORMANCE CURVES

