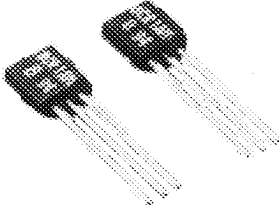


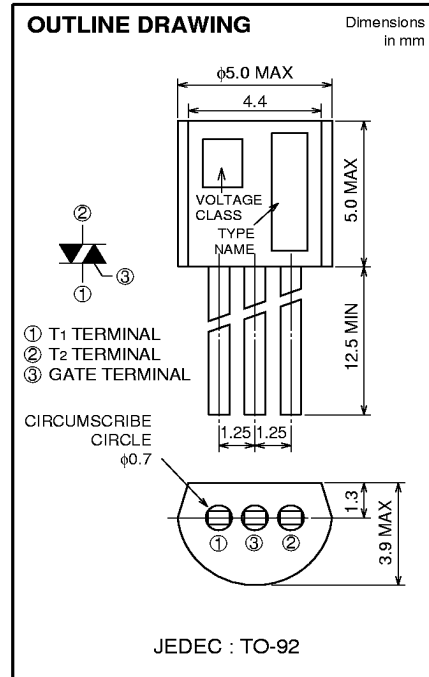
BCR1AM-8

LOW POWER USE
PLANAR PASSIVATION TYPE

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- **IT (RMS)** **1.0A**
- **VDRM** **400V**
- **IFGT I** **5mA**
- **IRGT I, IRGT III** **5mA (3mA) *5**
- **IFGT III** **10mA**



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	
		8	Unit
V _{DRM}	Repetitive peak off-state voltage *1	400	V
V _{DSM}	Non-repetitive peak off-state voltage *1	500	V

Symbol	Parameter	Conditions	Ratings	Unit
I _T (RMS)	RMS on-state current	Commercial frequency, sine full wave 360° conduction, T _c =56°C *4	1.0	A
I _{TRSM}	Surge on-state current	60Hz sinewave 1 full cycle, peak value, non-repetitive	10	A
I ² _t	I ² _t for fusing	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current	0.41	A ² s
P _{GM}	Peak gate power dissipation		1	W
P _{G (AV)}	Average gate power dissipation		0.1	W
V _{GM}	Peak gate voltage		6	V
I _{GM}	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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LOW POWER USE
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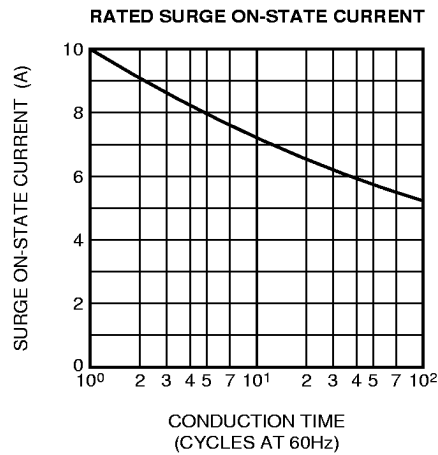
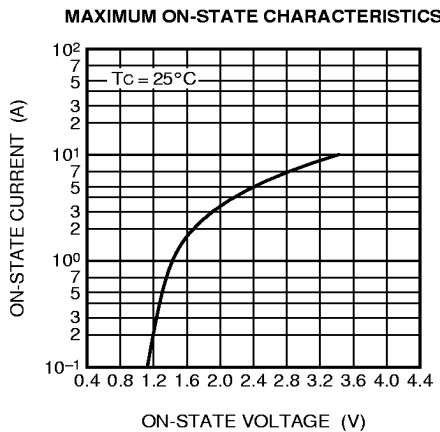
ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions	Limits			Unit	
			Min.	Typ.	Max.		
I _{DRM}	Repetitive peak off-state current	T _j =125°C, V _{DRM} applied	—	—	1.0	mA	
V _{TM}	On-state voltage	T _c =25°C, I _{TM} =1.5A, Instantaneous measurement	—	—	1.6	V	
V _{FGT I}	Gate trigger voltage *2	T _j =25°C, V _D =6V, R _L =6Ω, R _G =330Ω	I	—	—	2.0	V
V _{RGT I}			II	—	—	2.0	V
V _{RGT III}			III	—	—	2.0	V
V _{FGT III}			IV	—	—	2.0	V
I _{FGT I}	Gate trigger current *2	T _j =25°C, V _D =6V, R _L =6Ω, R _G =330Ω	I	—	—	5	mA
I _{RGT I}			II	—	—	5*5	mA
I _{RGT III}			III	—	—	5*5	mA
I _{FGT III}			IV	—	—	10	mA
V _{GD}	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 *4	—	—	50	°C/W	
(dv/dt) _c	Critical-rate of rise of off-state commutating voltage		*3	—	—	V/μs	

*2. Measurement using the gate trigger characteristics measurement circuit.
 *3. The critical-rate of rise of the off-state commutating voltage is shown in the table below.
 *4. Case temperature is measured at the T₂ terminal 1.5mm away from the molded case.
 *5. High sensitivity (I_{GT}≤3mA) is also available. (IGT item ①)

Voltage class	V _{DRM} (V)	(dv/dt) _c		Test conditions	Commutating voltage and current waveforms (inductive load)
		Min.	Unit		
8	400	2	V/μs	1. Junction temperature T _j =125°C 2. Rate of decay of on-state commutating current (di/dt) _c =-0.5A/ms 3. Peak off-state voltage V _D =400V	

PERFORMANCE CURVES

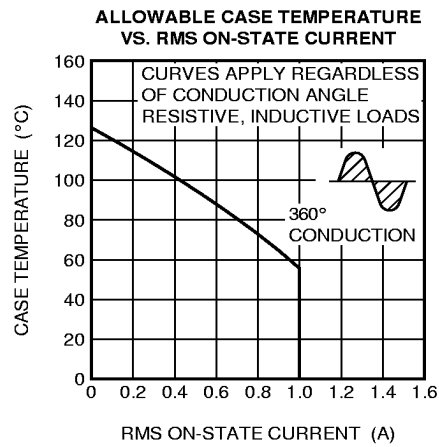
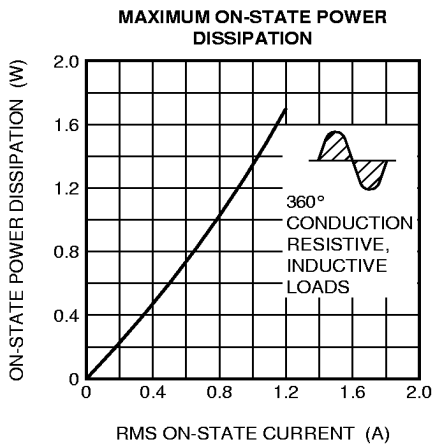
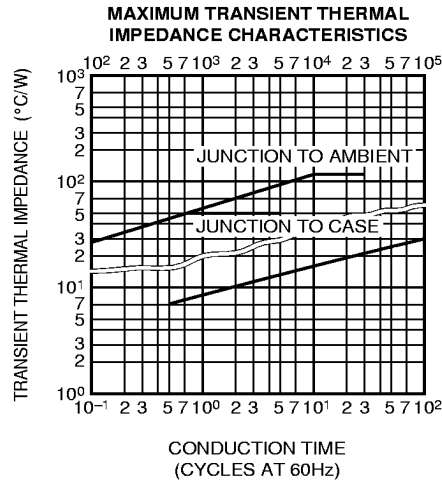
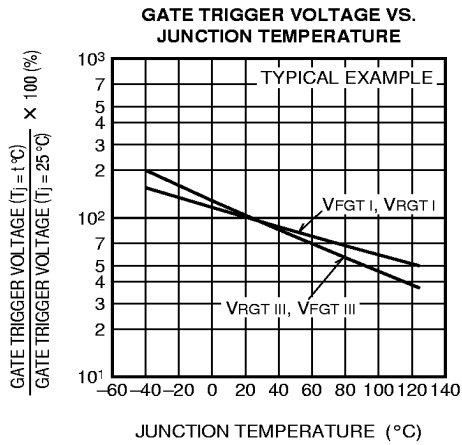
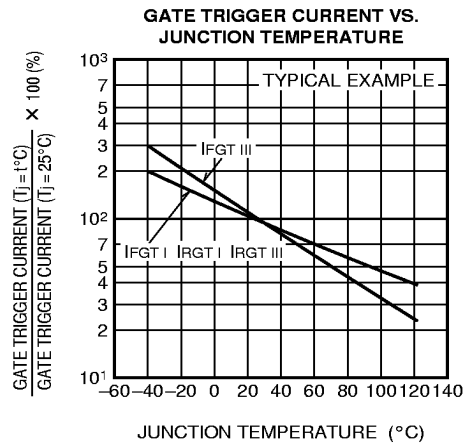
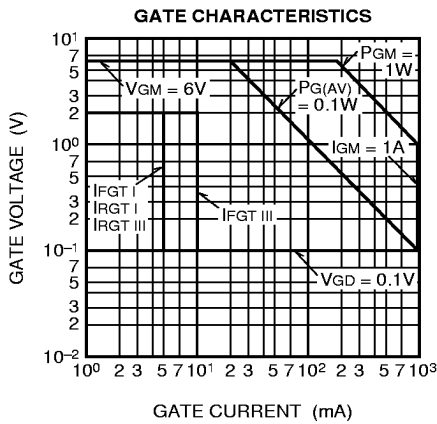


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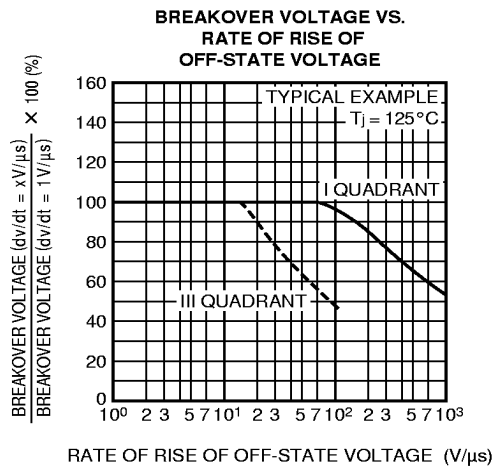
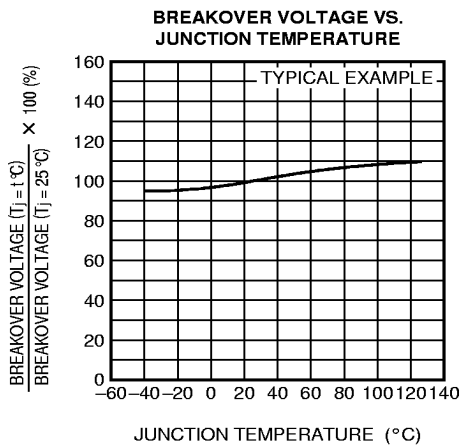
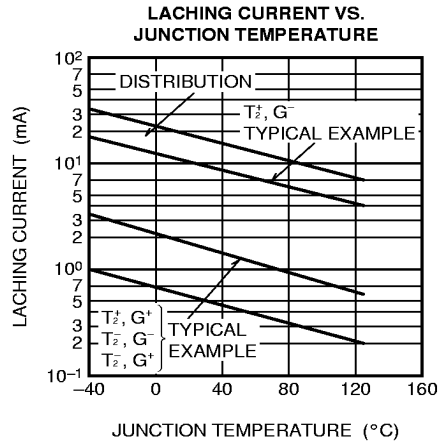
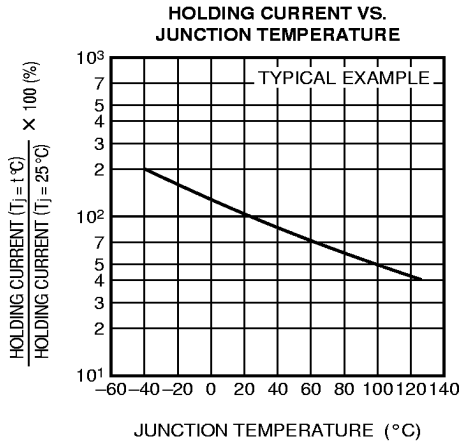
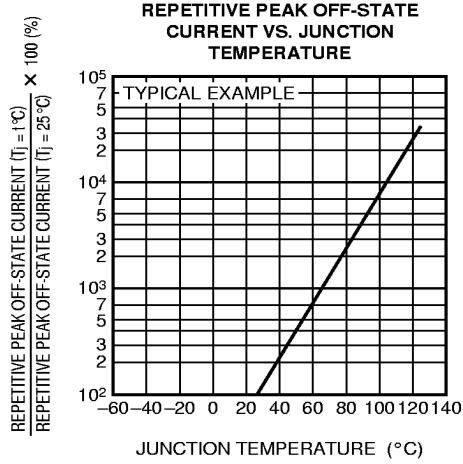
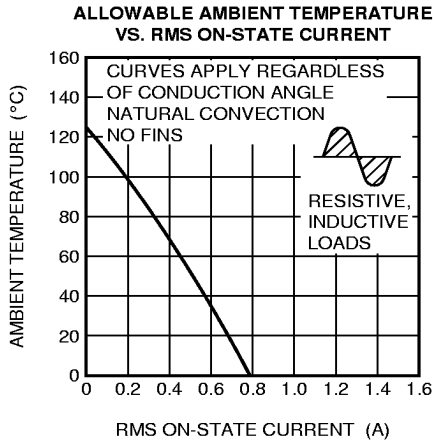
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LOW POWER USE
PLANAR PASSIVATION TYPE



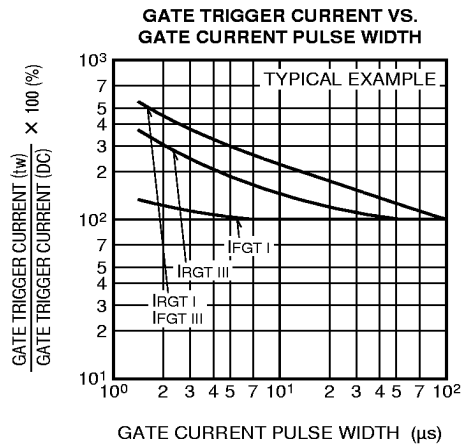
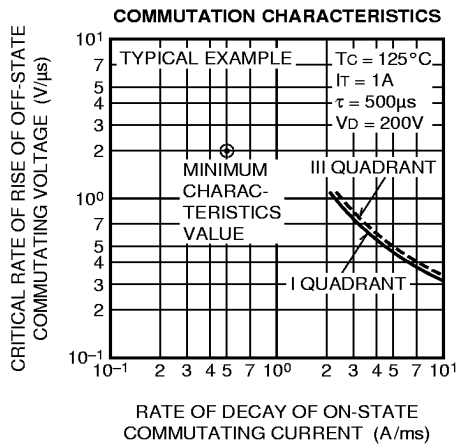
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LOW POWER USE
PLANAR PASSIVATION TYPE



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LOW POWER USE
PLANAR PASSIVATION TYPE



GATE TRIGGER CHARACTERISTICS TEST CIRCUITS

