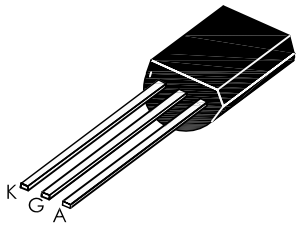
BT169 Series 0.8A SENSITIVE SCRs

DESCRIPTION:

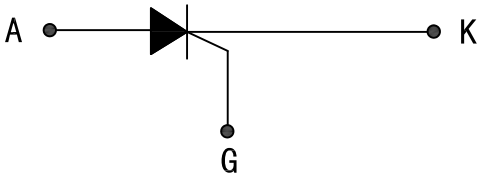
Highly sensitive triggering levels, the BT169 Series SCRs is suitable for all applications, where the available gate current is limited,such as capacitive discharge ignitions, motor control in kitchen aids, overvoltage crowbar protection in low power supplies...

TO-92



MAIN FEATURES

Symbol	Value	Unit
$I_{T(AV)}$	0.5	A
V_{DRM}/V_{RRM}	400 and 600	V
I_{GT}	≤200	μA



ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage junction temperature range		Tstg	- 40 to +150	℃
Operrating junction temperature range		Tj	- 40 to +110	℃
Repetitive Peak Off-state Voltage	Tj=25℃	V_{DRM}	400 and 600	V
Repetitive Peak Reverse Voltage	Tj=25℃	V_{RRM}	400 and 600	V
RMS on-state current (180 conduction angle)	Tc=77℃	$I_{T(RMS)}$	0.8	A
Average on-state current (180 conduction angle)	Tc=77℃	$I_{T(AV)}$	0.5	A
Non repetitive surge peak on-state current (Tj=25℃)	tp=10ms	I_{TSM}	8	A
	tp=8.3ms		9	A
I^2t Value for fusing	tp=10ms	I^2t	0.32	A^2s
Peak gate current tp=20us,Tj=110℃		I_{GM}	0.2	A
Average gate power dissipation Tj=110℃		$P_{G(AV)}$	0.1	W

ELECTRICAL CHARACTERISTICS(Tj=25℃ unless otherwise specified)

Symbol	Test Condition		BT169			Unit
			Min.	Typ.	Max.	
I_{GT}	V_D=6V R_L=100Ω		-	40	200	μA
V_{GT}			-	0.6	0.8	V
V_{GD}	V_D=V_{DRM} R_L=3.3KΩ R_{GK}=1KΩ Tj =110℃		0.2	-	-	V
I_L	I_G=1mA R_{GK}=1KΩ		-	-	6	mA
I_H	I_T =50mA R_{GK}=1KΩ		-	-	5	mA
V_{TM}	I_T = 1A tp=380uS	Tj=25 ℃	-	1.2	1.35	V
dV/dt	V_D=67%V_{DRM} R_{GK}=1KΩ	Tj=110 ℃	10	-	-	V/μs
I_{DRM}	V_D= V_{DRM} R_{GK}=1KΩ	Tj=25 ℃	-	-	5	μA
		Tj=110 ℃	-	-	0.1	mA
I_{RRM}	V_R = V_{RRM} R_{GK}=1KΩ	Tj=25 ℃	-	-	5	μA
		Tj=110 ℃	-	-	0.1	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
$R_{th(J-C)}$	Junction to Case	TO-92	60	℃/W

ORDERING INFORMATION