

/ Descriptions

WR0553

Thyristor in a TO-220 Plastic Package.

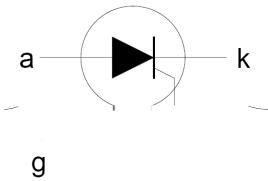
/ Features

Glass passivated thyristors in a plastic envelope.

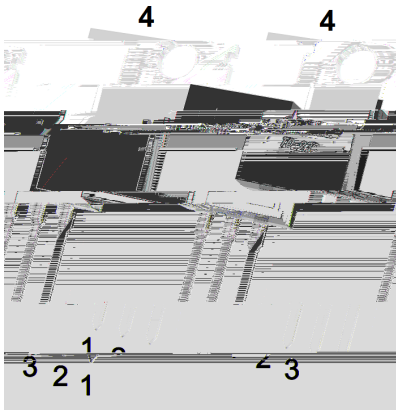
/ Applications

Use in applications requiring high bidirectional blocking voltage capability and high thermal cycling performance. Typical applications include motor control industrial and domestic lighting, heating and static switching.

/ Equivalent Circuit



/ Pinning



PIN1 Cathode PIN 2,4 Anode PIN 3 Gate

/ Marking

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Repetitive peak off-state/reverse voltages($T_J=25^\circ\text{C}$)	$V_{\text{DRM}}/V_{\text{RRM}}$	650	V
Average on-state current ($T_C \leq 105^\circ\text{C}$)	$I_{\text{T(AV)}}$	8	A
RMS on-state current($T_C=105^\circ\text{C}$)	$I_{\text{T(RMS)}}$	12	A
Non repetitive surge peak on-state current ($t_p=10\text{ms}$, $T_J=25^\circ\text{C}$)	I_{TSM}	120	A
Non repetitive surge peak on-state current ($t_p=8.3\text{ms}$, $T_J=25^\circ\text{C}$)		132	
Peak gate current($t_p=20\mu\text{s}$ $T_J=125^\circ\text{C}$)	I_{GM}	2.0	A
Average gate power dissipation($T_J=125^\circ\text{C}$)	$P_{\text{G(AV)}}$	0.5	W
Operating junction temperature range	T_J	$-40 \sim 125$	$^\circ\text{C}$
Storage junction temperature range	T_{stg}	$-40 \sim 150$	$^\circ\text{C}$
Junction to ambient(AC)	$R_{\text{th(j-a)}}$	60	$^\circ\text{C/W}$
Junction to case for(AC)	$R_{\text{th(j-c)}}$	1.3	

Symbol

Test Conditions

BRBS08065RA

() / Temperature Profile for Dip Soldering(Pb-Free)

- 1

25 150%

60 90sec;

1.Preheating:25~150%, Time:60~90sec.
- 2

255^{±5%}

5^{±0.5sec};

2.Peak Temp.:255^{±5%}, Duration:5^{±0.5sec}.
- 3

2 10%/sec.

3. Cooling Speed: 2~10%/sec.

/ Resistance to Soldering Heat Test Conditions

270^{±5%} 10^{±1 sec}. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm ³)		
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type
TO-237×Apr0unit