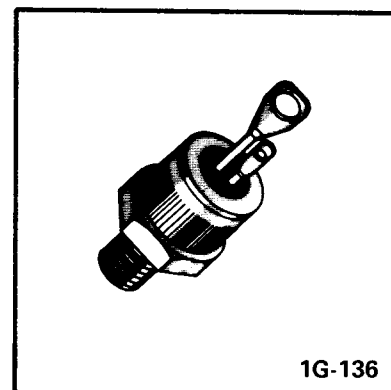


REVERSE BLOCKING TRIODE THYRISTORS

(SCRs)



1G-136

DESIGN FEATURES

- Gate sensitivity 50 mA
- dv/dt typically greater than 200 V/ μ s
- Operating temperature to +100°C

Transitron's hermetically sealed RTU02 SCR series is designed specifically for those industrial and consumer applications where excellent electrical performance and high reliability are companion requirements. These SCR's are exceptionally well suited to such applications as solenoid and lamp drivers, temperature controllers, voltage and current sensing, motor control, and many other current and voltage switching requirements.

REPETITIVE PEAK OFF-STATE VOLTAGE (V_{DRM}) and REPETITIVE PEAK REVERSE VOLTAGE (V_{RRM})

Symbol	RTU 0210	RTU 0220	RTU 0230	RTU 0240	RTU 0260	Test Conditions
V_{DRM} - VOLTS	100	200	300	400	600	$T_C = 100^\circ\text{C}$
V_{RRM} - VOLTS	100	200	300	400	600	

ABSOLUTE MAXIMUM RATINGS @ $T_C = 65^\circ\text{C}$

Definitions	Symbol	Limits
Average On-State Current	$I_T(AV)$	16 A
RMS On-State Current	$I_T(RMS)$	25 A
Peak One-Cycle Surge Current (60 Hz)	I_{TSM}	150 A
Peak Reverse Gate Voltage	V_{GRM}	5 V
Peak Gate Power	P_{GM}	5.0 W
Average Gate Power	$P_{G(AV)}$	500 mW
Operating Temperature Range	T_{op}	-65 to +100°C
Storage Temperature Range	T_{stg}	-65 to +125°C

25 AMP SCR

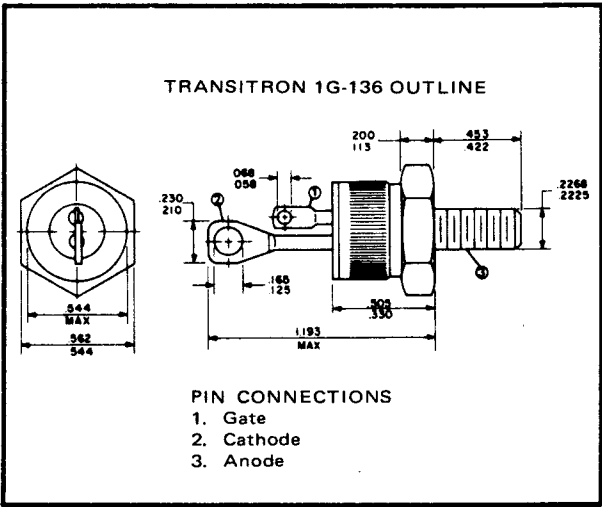
ELECTRICAL CHARACTERISTICS

PARAMETERS			LIMITS		TEST CONDITIONS			
Symbol	Units	Definitions	Min.	Max.	T °C	R _{GK} ohms	V _{AA} volts	Other Conditions
V _{TM}	Volts	Max. On-State Voltage	—	2.5	25	—	—	I _{TM} = 50 A peak
I _{DRM}	mA	Rep. Peak Off-State Current	—	1.0	25	∞	V _{DRM}	
			—	2.0	100	∞	V _{DRM}	
I _{RRM}	mA	Rep. Peak Reverse Current	—	1.0	25	∞	V _{RRM}	
			—	2.0	100	∞	V _{RRM}	
I _{GT}	mA	Gate Trigger Current	—	50	25	∞	6	
V _{GT}	Volts	Gate Trigger Voltage	—	3	25	∞	6	
I _H	mA	Holding Current	—	200	25	∞	6	
dv/dt	V/μs	Rate of rise of V _{DRM}	200*	—	25	∞	V _{DRM}	

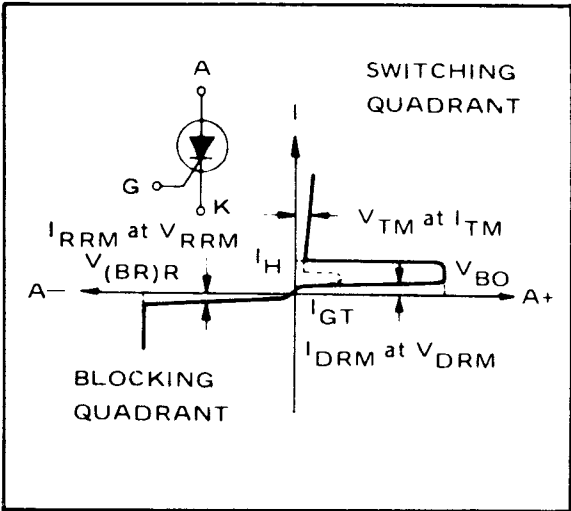
*Typical

NOTE
FOR CHARACTERISTIC CURVES FOR THIS FAMILY REFER
TO THE END OF THIS GROUP OF SPECIFICATIONS.

PACKAGING DATA

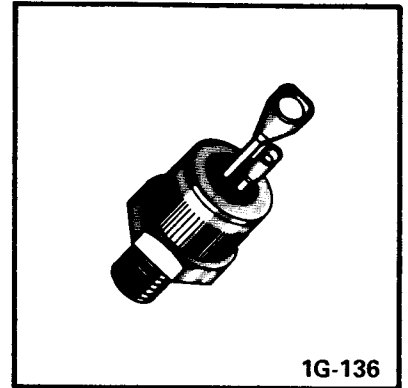


V-I CHARACTERISTICS



REVERSE BLOCKING TRIODE THYRISTORS

(SCRs)



DESIGN FEATURES

- Gate sensitivity 50 mA
- Current range to 35 A RMS
- Operating temperature to +100°C

Transitron's hermetically sealed RTU07 SCR series is designed specifically for those industrial and consumer applications where excellent electrical performance and high reliability are companion requirements. These SCR's are exceptionally well suited to such applications as solenoid and lamp drivers, temperature controllers, voltage and current sensing, motor control, and many other current and voltage switching requirements.

REPETITIVE PEAK OFF-STATE VOLTAGE (V_{DRM}) and REPETITIVE PEAK REVERSE VOLTAGE (V_{RRM})

Symbol	RTU 0710	RTU 0720	RTU 0730	RTU 0740	RTU 0760	Test Conditions
V_{DRM} – VOLTS	100	200	300	400	600	$T_C = 100^\circ\text{C}$
V_{RRM} – VOLTS	100	200	300	400	600	

ABSOLUTE MAXIMUM RATINGS @ $T_C = 65^\circ\text{C}$

Definitions	Symbol	Limits
Average On-State Current	$I_T(AV)$	25 A
RMS On-State Current	$I_T(RMS)$	35 A
Peak One-Cycle Surge Current (60 Hz)	I_{TSM}	250 A
Peak Reverse Gate Voltage	V_{GRM}	5 V
Peak Gate Power	P_{GM}	5.0 W
Average Gate Power	$P_{G(AV)}$	500 mW
Operating Temperature Range	T_{op}	-65 to $+100^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to $+125^\circ\text{C}$

35 AMP SCR

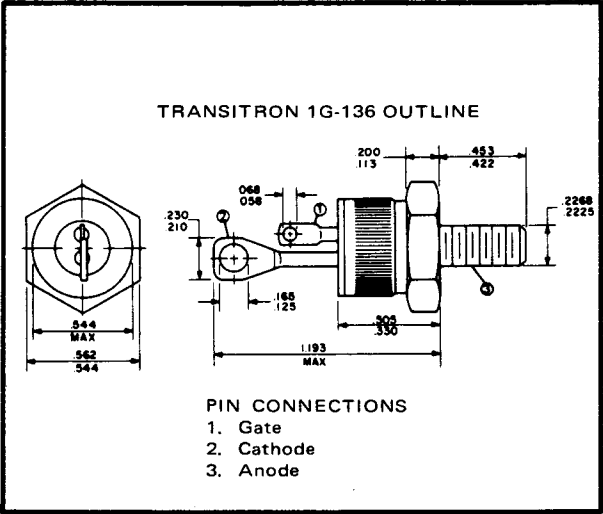
ELECTRICAL CHARACTERISTICS

PARAMETERS			LIMITS		TEST CONDITIONS			
Symbol	Units	Definitions	Min.	Max.	T °C	R _{GK} ohms	V _{AA} volts	Other Conditions
V _{TM}	Volts	Max. On-State Voltage	—	1.8	25	—	—	I _{TM} = 50 A peak
I _{DRM}	mA	Rep. Peak Off-State Current	—	0.5 2	25 100	∞ ∞	V _{DRM} V _{DRM}	
I _{RRM}	mA	Rep. Peak Reverse Current	—	0.5 2	25 100	∞ ∞	V _{RRM} V _{RRM}	
I _{GT}	mA	Gate Trigger Current	—	50	25	∞	6	
V _{GT}	Volts	Gate Trigger Voltage	—	3	25	∞	6	
I _H	mA	Holding Current	—	200	25	∞	6	
dv/dt	V/μs	Rate of rise of V _{DRM}	200*	—	25	∞	V _{DRM}	

*Typical

NOTE
FOR CHARACTERISTIC CURVES FOR THIS FAMILY REFER
TO THE END OF THIS GROUP OF SPECIFICATIONS.

PACKAGING DATA



V-I CHARACTERISTICS

