

2N6394 Series

Preferred Device

Silicon Controlled Rectifiers

Reverse Blocking Thyristors

Designed primarily for half-wave ac control applications, such as motor controls, heating controls and power supplies.

- Glass Passivated Junctions with Center Gate Geometry for Greater Parameter Uniformity and Stability
- Small, Rugged, Thermowatt Construction for Low Thermal Resistance, High Heat Dissipation and Durability
- Blocking Voltage to 800 Volts
- Device Marking: Logo, Device Type, e.g., 2N6394, Date Code

***MAXIMUM RATINGS** ($T_J = 25^\circ\text{C}$ unless otherwise noted)

Rating	Symbol	Value	Unit
Peak Repetitive Off-State Voltage (Note 1.) ($T_J = -40$ to 125°C , Sine Wave, 50 to 60 Hz, Gate Open)	V_{DRM} , V_{RRM}	50 100 400 800	Volts
On-State RMS Current (180° Conduction Angles; $T_C = 90^\circ\text{C}$)	$I_{T(RMS)}$	12	A
Peak Non-Repetitive Surge Current (1/2 Cycle, Sine Wave, 60 Hz, $T_J = 90^\circ\text{C}$)	I_{TSM}	100	A
Circuit Fusing ($t = 8.3$ ms)	I^2t	40	A^2s
Forward Peak Gate Power (Pulse Width ≤ 1.0 μs , $T_C = 90^\circ\text{C}$)	P_{GM}	20	Watts
Forward Average Gate Power ($t = 8.3$ ms, $T_C = 90^\circ\text{C}$)	$P_{G(AV)}$	0.5	Watts
Forward Peak Gate Current (Pulse Width ≤ 1.0 μs , $T_C = 90^\circ\text{C}$)	I_{GM}	2.0	A
Operating Junction Temperature Range	T_J	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40 to +150	$^\circ\text{C}$

*Indicates JEDEC Registered Data

1. V_{DRM} and V_{RRM} for all types can be applied on a continuous basis. Ratings apply for zero or negative gate voltage; however, positive gate voltage shall not be applied concurrent with negative potential on the anode. Blocking voltages shall not be tested with a constant current source such that the voltage ratings of the devices are exceeded.



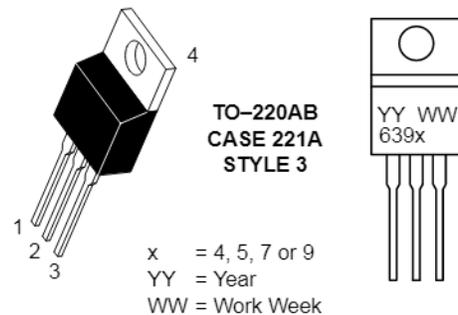
ON Semiconductor™

<http://onsemi.com>

SCRs
12 AMPERES RMS
50 thru 800 VOLTS



MARKING DIAGRAM



PIN ASSIGNMENT

Pin	Assignment
1	Cathode
2	Anode
3	Gate
4	Anode

ORDERING INFORMATION

Device	Package	Shipping
2N6394	TO220AB	500/Box
2N6395	TO220AB	500/Box
2N6397	TO220AB	500/Box
2N6399	TO220AB	500/Box

Preferred devices are recommended choices for future use and best overall value.