

# MCR264-4, MCR264-6, MCR264-8

Preferred Device

## Silicon Controlled Rectifiers

### Reverse Blocking Thyristors

Designed for back-to-back SCR output devices for solid state relays or applications requiring high surge operation.

- Photo Glass Passivated Blocking Junctions for High Temperature Stability, Center Gate for Uniform Parameters
- 40 Amperes Surge Capability
- Blocking Voltage to 600 Volts
- Device Marking: Logo, Device Type, e.g., MCR264-4, Date Code

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

Rating	Symbol	Value	Unit
Peak Repetitive Off-State Voltage <sup>(1)</sup> ( $T_J = -40$ to $125^\circ\text{C}$ , Sine Wave 50 to 60 Hz; Gate Open)	$V_{\text{DRM}}$ , $V_{\text{RRM}}$	200 400 600	Volts
On-State RMS Current ( $T_C = 80^\circ\text{C}$ ; $180^\circ$ Conduction Angles)	$I_{\text{T(RMS)}}$	40	A
Average On-State Current ( $T_C = 80^\circ\text{C}$ ; $180^\circ$ Conduction Angles)	$I_{\text{T(AV)}}$	25	A
Peak Non-repetitive Surge Current ( $T_C = 80^\circ\text{C}$ ) (1/2 Cycle, Sine Wave 60 Hz, $T_J = 125^\circ\text{C}$ )	$I_{\text{TSM}}$	400 450	A
Forward Peak Gate Power (Pulse Width $\leq 10$ $\mu\text{s}$ , $T_C = 80^\circ\text{C}$ )	$P_{\text{GM}}$	20	Watts
Forward Average Gate Power ( $t = 8.3$ ms, $T_C = 80^\circ\text{C}$ )	$P_{\text{G(AV)}}$	0.5	Watt
Forward Peak Gate Current (Pulse Width $\leq 10$ $\mu\text{s}$ , $T_C = 80^\circ\text{C}$ )	$I_{\text{GM}}$	2.0	A
Operating Junction Temperature Range	$T_J$	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	-40 to +150	$^\circ\text{C}$

(1)  $V_{\text{DRM}}$  and  $V_{\text{RRM}}$  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.

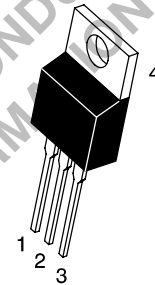
These devices are rated for use in applications subject to high surge conditions. Care must be taken to insure proper heat sinking when the device is to be used at high sustained currents.



**ON Semiconductor**

<http://onsemi.com>

**SCRs**  
**40 AMPERES RMS**  
**200 thru 600 VOLTS**



**TO-220AB**  
**CASE 221A**  
**STYLE 3**

#### PIN ASSIGNMENT

Pin	Assignment
1	Cathode
2	Anode
3	Gate
4	Anode

#### ORDERING INFORMATION

Device	Package	Shipping
MCR264-4	TO220AB	500/Box
MCR264-6	TO220AB	500/Box
MCR264-8	TO220AB	500/Box

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