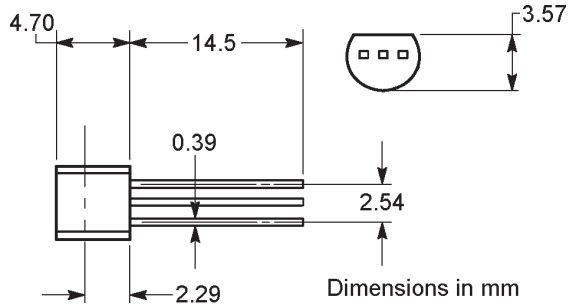
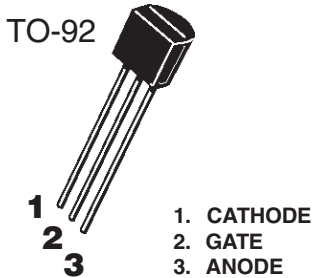


# 0.3 Amp Silicon Controlled Rectifiers

## Mechanical Dimensions

FCR0320...40 Series



### Features

- DIRECTLY DRIVEN WITH IC AND MOS DEVICE
- AVAILABLE IN VOLTAGE RATINGS FROM 200 TO 400 VOLTS
- VOID-FREE GLASS PASSIVATED CHIPS
- SENSITIVE GATE TRIGGER CURRENT

### Maximum Ratings and Electrical Characteristics

	Symbol	Value	Units
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage @ $T_C = 125^\circ\text{C}$	$V_{DRM}$ $V_{RRM}$	200 300 400	Volts
RMS On-State Current @ $T_C = 50^\circ\text{C}$ and Conduction Angle of $180^\circ$	$I_{T(AV)}$	0.3	Amps
Peak-Surge On-State Current One cycle @ 50Hz or 60Hz	$V_{TSM}$	6	Amps
Peak Gate-Trigger Current for $3\mu\text{s}$ max.	$I_{GTM}$	0.1	Amps
Peak Gate-Power Dissipation @ $I_{GT} \leq I_{GTM}$	$P_{GM}$	0.1	Watts
Average Gate-Power Dissipation	$P_{G(AV)}$	0.05	Watts
Peak Off-State Current (1) @ Rated Reverse Voltage	$I_{DRM}$ $I_{RRM}$	10 200	$\mu\text{Amps}$
Maximum On-State Voltage @ $T_C = 25^\circ\text{C}$ and $I_T = 0.3\text{A}$	$V_{TM}$	1.7	Volts
DC Holding Current (1), Gate Open, $T_C = 25^\circ\text{C}$	$I_{HO}$	5	mAmps
Critical Rate-Of-Rise of Off-State Voltage (1) Gate Open, $T_C = 110^\circ\text{C}$	Critical $dV/dt$	5	Volts/ $\mu\text{sec}$
DC Gate -Trigger Current for Anode (2)	$I_{GT}$	200	$\mu\text{Amps}$
DC Gate -Trigger Voltage for Anode (2)	$V_{GT}$	0.8	Volts
Gate-Controlled Turn-On Time, $t_D + t_R$ $I_{GT} = 10\text{mA}$ , $T_C = 25^\circ\text{C}$	$T_{gt}$	2.2	$\mu\text{sec}$
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	75	$^\circ\text{C/Watt}$
Storage Temperature Range	$T_{STG}$	-40 to 150	$^\circ\text{C}$
Operating Temperature Range	$T_{OPER}$	-40 to 110	$^\circ\text{C}$

Notes:

- (1)  $R_{\theta JK} = 1\text{k}\Omega$ .  
(2) Voltage = 7Vdc,  $R_L = 100\Omega$ ,  $T_C = 25^\circ\text{C}$ .