

## 2N1595 thru 2N1599

# SILICON THYRISTOR

Industrial-type, low-current silicon controlled rectifiers  
in a three-lead package ideal for printed-circuit applications.  
Current handling capability of 1.6 amperes at junction temperatures to 125°C

### MAXIMUM RATINGS (\*)

$T_J=125^\circ\text{C}$  unless otherwise noted

Symbol	Ratings	2N1595	2N1596	2N1597	2N1598	2N1599	
$V_{RSM(REP)}$	Peak reverse blocking voltage *	50	100	200	300	400	V
$I_{T(RMS)}$	Forward Current RMS (all conduction angles)	1.6					Amp
$I_{TSM}$	Peak Surge Current (One Cycle, 60Hz, $T_J=-65$ to $+125^\circ\text{C}$ )	15					Amp
$P_{GM}$	Peak Gate Power – Forward	0.1					W
$P_{G(AV)}$	Average Gate Power - Forward	0.01					W
$I_{GM}$	Peak Gate Current – Forward	0.1					Amp
$V_{GFM}$	Peak Gate Voltage - Forward	10					V
$V_{GRM}$	Peak Gate Voltage - Reverse	10					V
$T_J$	Operating Junction Temperature Range	-65 to +125					°C
$T_{STG}$	Storage Temperature Range	-65 to +150					

### ELECTRICAL CHARACTERISTICS

$T_J=25^\circ\text{C}$  unless otherwise noted,  $R_{GK}=1000\Omega$

Symbol	Ratings	2N1595	2N1596	2N1597	2N1598	2N1599		
$V_{DRM}$	Peak Forward Blocking Voltage *	Min :	50	100	200	300	400	V
$I_{RRM}$	Peak Reverse Blocking Current (Rated $V_{DRM}$ , $T_J=125^\circ\text{C}$ )	Max : 1.0					mA	

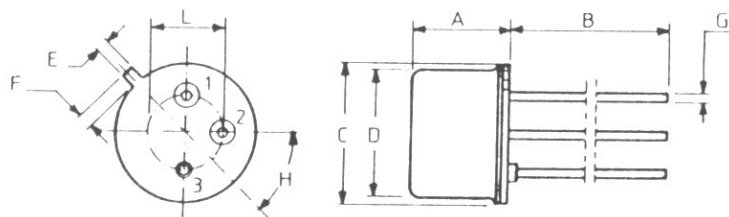
## 2N1595 thru 2N1599

Symbol	Ratings	2N1595	2N1596	2N1597	2N1598	2N1599	
$I_{DRM}$	Peak Forward Blocking Current (Rated $V_{DRM}$ with gate open, $T_J = 125^\circ\text{C}$ )	Max : 1.0					mA
$I_{GT}$	Gate Trigger Current (2) Anode Voltage=7.0 Vdc, $R_L=12\Omega$	Typ : 2.0 Max : 10					mA
$V_{GT}$	Gate Trigger Voltage Anode Voltage=7.0 Vdc, $R_L=12\Omega$	Typ : 0.7 Max : 3.0					V
	$V_{DRM} = \text{Rated}$ , $R_L=100\Omega$ , $T_J=125^\circ\text{C}$	Min : 0.2					
$I_H$	Holding Current Anode Voltage=7.0 Vdc, gate open	Typ : 5.0					mA
$V_{TM}$	Forward On Voltage $I_T=1 \text{ Adc}$	Typ : 1.1 Max : 2.0					V
$t_{gt}$	Turn-On Time ( $t_d+t_r$ ) $I_{GT}=10 \text{ mA}$ , $I_T=1 \text{ A}$	Typ : 0.8					$\mu\text{s}$
$t_q$	Turn-Off Time $I_T=1 \text{ A}$ , $I_R = 1 \text{ A}$ , $dv/dt=20 \text{ V}/\mu\text{s}$ , $T_J=125^\circ\text{C}$ $V_{DRM} = \text{Rated Voltage}$	Typ : 10					$\mu\text{s}$

\*  $V_{DRM}$  or  $V_{RSM}$  can be applied for all types on a continuous dc basis without incurring damage.

### MECHANICAL DATA CASE TO-39

DIMENSIONS		
	mm	inches
A	6,25	0,24
B	13,59	0,53
C	9,24	0,36
D	8,24	0,32
E	0,78	0,03
F	1,05	0,041
G	0,42	0,165
H	45°	
L	5,1	0,2



Pin 1 :	Cathode
Pin 2 :	Gate
Pin 3 :	Anode

*Information furnished is believed to be accurate and reliable. However, CS assumes no responsibility for the consequences of use of such information nor for errors that could appear.  
Data are subject to change without notice.*