

DIGITRON SEMICONDUCTORS

2N1595-2N1599 SILICON THYRISTOR

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).
 Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

MAXIMUM RATINGS ($T_J = 125^\circ\text{C}$ unless otherwise noted)

Symbol	Ratings	2N1595	2N1596	2N1597	2N1598	2N1599	Unit
$V_{RSM(REP)}$	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					$^\circ\text{C}$
T_{STG}	Storage temperature range	-65 to +150					$^\circ\text{C}$

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

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

Symbol	Ratings	2N1595	2N1596	2N1597	2N1598	2N1599	Unit
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
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 Anode voltage = 7.0 Vdc, $R_L = 12\Omega$ Typ. Max.	2.0 10					mA
V_{GT}	Gate trigger voltage Anode voltage = 7.0Vdc, $R_L = 12\Omega$ $V_{DRM} = \text{rated}$, $R_L = 100\Omega$, $T_J = 125^\circ\text{C}$ Typ. Max. Min.	0.7 3.0 0.2					V
I_H	Holding current Anode voltage = 7.0 Vdc, gate open Typ.	5.0					mA
V_{TM}	Forward on-voltage $I_T = 1\text{A}$ Typ. Max.	1.1 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					μs
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					μs

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

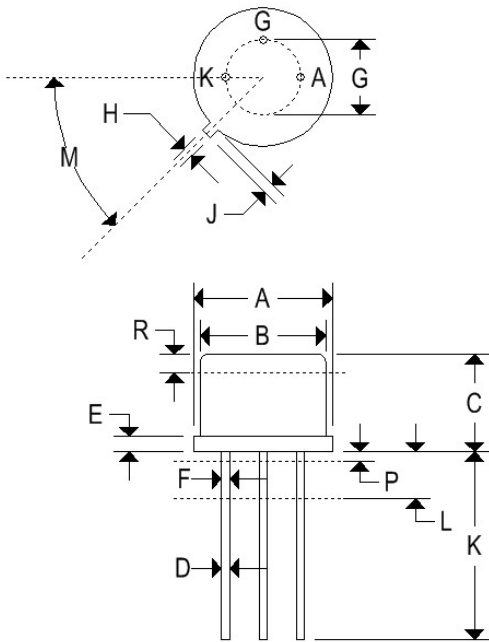
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2N1595-2N1599

SILICON THYRISTOR

MECHANICAL CHARACTERISTICS

Case	TO-39
Marking	Alpha-numeric
Pin out	See below



	TO-39			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.335	0.370	8.510	9.390
B	0.305	0.335	7.750	8.500
C	0.240	0.260	6.100	6.600
D	0.016	0.021	0.410	0.530
E	0.009	0.041	0.230	1.040
F	0.016	0.019	0.410	0.480
G	0.200 BSC		5.080 BSC	
H	0.028	0.034	0.720	0.860
J	0.029	0.045	0.740	1.140
K	0.500	0.750	12.700	19.050
L	0.250	-	6.350	-
M	45°C BSC		45°C BSC	
P	-	0.050	-	1.270
R	0.100	-	2.540	-