

2N1595 – 2N1596 – 2N1597 – 2N1598 – 2N1599

SILICON THYRISTORS

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.
Compliance to RoHS.

MAXIMUM RATINGS (*)

T_J=125°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					A
I _{TSM}	Peak Surge Current (One Cycle, 60Hz, T _J =-65 to+125°C)	15					A
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					A
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					

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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					mA
I_{DRM}	Peak Forward Blocking Current (Rated V_{DRM} with gate open, $T_J=125^\circ\text{C}$)	Max 1					mA
I_{GT}	Gate Trigger Current 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} = 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 $I_T=1$ Adc	Typ : 1.1, Max : 2.0					V
t_{gt}	Turn-On Time (t_d+t_r) $I_{GT}=10$ mA, $I_T=1$ A	Typ : 0.8					μs
t_q	Turn-Off Time $I_T=1$ A, $I_R=1$ A, $dv/dt=20$ V/ μs , $T_J=125^\circ\text{C}$ V_{DRM} = 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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MECHANICAL DATA CASE TO-39

DIMENSIONS (mm)		
	min	max
A	8.50	9.39
B	7.74	8.50
C	6.09	6.60
D	0.40	0.53
E	-	0.88
F	2.41	2.66
G	4.82	5.33
H	0.71	0.86
J	0.73	1.02
K	12.70	-
L	42°	48°

Pin 1 :	kathode
Pin 2 :	Gate
Pin 3 :	Anode
Case :	anode

