



## 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<sub>J</sub>=125°C unless otherwise noted

Symbol	Ratings	2N1595	2N1596	2N1597	2N1598	2N1599	Unit
V <sub>RSM(REP)</sub>	Peak reverse blocking voltage (*)	50	100	200	300	400	V
I <sub>T(RMS)</sub>	Forward Current RMS (all conduction angles)	1.6					A
I <sub>TSM</sub>	Peak Surge Current (One Cycle, 60Hz, T <sub>J</sub> =-65 to+125°C)	15					A
P <sub>GM</sub>	Peak Gate Power – Forward	0.1					W
P <sub>G(AV)</sub>	Average Gate Power - Forward	0.01					W
I <sub>GM</sub>	Peak Gate Current – Forward	0.1					A
V <sub>GFM</sub>	Peak Gate Voltage - Forward	10					V
V <sub>GRM</sub>	Peak Gate Voltage - Reverse	10					V
T <sub>J</sub>	Operating Junction Temperature Range	-65 to +125					°C
T <sub>STG</sub>	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 * <b>Min :</b>	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 $I_T=1\text{ A}$ dc	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 $I_T=1\text{ A}$ , $I_R=1\text{ A}$ , $dv/dt=20\text{ V}/\mu\text{s}$ , $T_J=125^{\circ}\text{C}$ $V_{DRM}$ = Rated Voltage	Typ : 10					$\mu\text{s}$

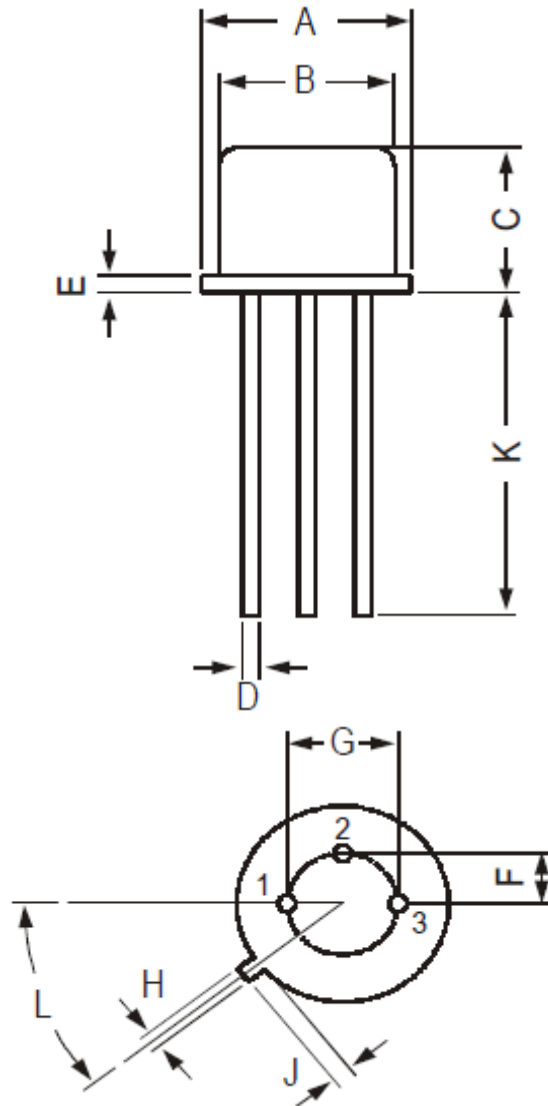
(\*)  $V_{DRM}$  or  $V_{RSM}$  can be applied for all types on a continuous dc basis without incurring damage.

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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



Revised October 2012

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