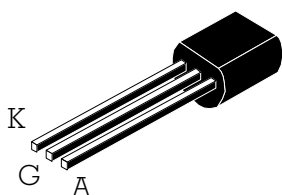


SENSITIVE GATE SCR

TO92
(Plastic)



On-State Current

0.8 Amp

Gate Trigger Current

< 200 μ A

Off-State Voltage

400 V

This series of **Silicon C**ontrolled **R**ectifiers uses a high performance PNP technology.

This part is intended for general purpose applications where high gate sensitivity is required.

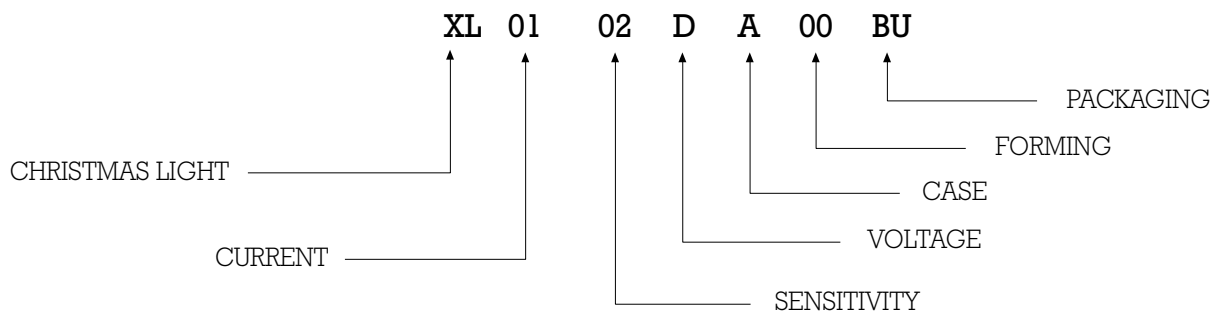
Absolute Maximum Ratings, according to IEC publication No. 134

SYMBOL	PARAMETER	CONDITIONS	Min.	Max.	Unit
$I_{T(RMS)}$	On-state Current	All Conduction Angle, $T_L = 60^\circ\text{C}$	0.8		A
$I_{T(AV)}$	Average On-state Current	Half Cycle, $Q = 180^\circ$, $T_L = 60^\circ\text{C}$	0.5		A
I_{TSM}	Non-repetitive On-State Current	Half Cycle, 60 Hz, $T_j = 25^\circ\text{C}$	8		A
I_{TSM}	Non-repetitive On-State Current	Half Cycle, 50 Hz, $T_j = 25^\circ\text{C}$	7		A
I^2t	Fusing Current	$t = 10\text{ms}$, Half Cycle	0.24		A^2s
V_{GRM}	Peak Reverse Gate Voltage	$I_{GR} = 10 \mu\text{A}$	8		V
I_{GM}	Peak Gate Current	20 μs max.		1	A
P_{GM}	Peak Gate Dissipation	20 μs max.		2	W
$P_{G(AV)}$	Gate Dissipation	20ms max.		0.1	W
T_j	Operating Temperature		-40	+125	$^\circ\text{C}$
T_{stg}	Storage Temperature		-40	+150	$^\circ\text{C}$
T_{sld}	Soldering Temperature	1.6 mm from case, 10s max.		260	$^\circ\text{C}$

SYMBOL	PARAMETER	CONDITIONS	VOLTAGE	Unit
			D	
V_{DRM}	Repetitive Peak Off State Voltage	$R_{CK} = 1 \text{ KW}$	400	V

SENSITIVE GATE SCR
Electrical Characteristics

SYMBOL	PARAMETER	CONDITIONS		SENSITIVITY	Unit
				02	
I_{GT}	Gate Trigger Current	$V_D = 12 V_{DC}, R_L = 140W, T_j = 25 ^\circ C$	MAX	200	μA
I_{DRM}	Off-State Leakage Current	$V_D = V_{DRM}, R_{GK} = 1KW, T_j = 125 ^\circ C$	MAX	100	μA
		$T_j = 25 ^\circ C$	MAX	1	μA
V_{TM}	On-state Voltage	$I_T = 1.6 \text{ Amp}, t_p = 380 \mu s, T_j = 25 ^\circ C$	MAX	1.93	V
V_{GT}	Gate Trigger Voltage	$V_D = 12 V_{DC}, R_L = 140W, T_j = 25 ^\circ C$	MAX	0.8	V
V_{GD}	Gate Non-Trigger Voltage	$V_{DRM}, R_{GK} = 1KW, R_L = 3.3KW, T_j = 125 ^\circ C$	MIN	0.1	V
I_H	Holding Current	$I_T = 50 \text{ mA}, R_{GK} = 1KW, T_j = 25 ^\circ C$	MAX	5	mA
I_L	Latching Current	$I_G = 1 \text{ mA}, R_{GK} = 1KW, T_j = 25 ^\circ C$	MAX	6	mA
dv / dt	Critical Rate of Voltage Rise	$V_D = 0.67 \times V_{DRM}, R_{GK} = 1KW, T_j = 125 ^\circ C$	TYP	25	V/ μs
di / dt	Critical Rate of Current Rise	$I_G = 10 \text{ mA}, di_G/dt = 0.1 \text{ A}/\mu s, T_j = 125 ^\circ C$	MIN	30	A/ μs
t_{gd}	Gate Controlled Delay Time	$I_G = 10 \text{ mA}, di_G/dt = 0.1 \text{ A}/\mu s, T_j = 25 ^\circ C$ $I_{TM} = 3 \times I_{T(AV)}, V_D = V_{DRM}$	TYP	500	ns
$R_{th(j-l)}$	Thermal Resistance Junction-Leads for DC			80	$^\circ C/W$
$R_{th(j-a)}$	Thermal Resistance Junction-Ambient			150	$^\circ C/W$

PART NUMBER INFORMATION

PACKAGE MECHANICAL DATA

TO92 (Plastic)

REF.	DIMENSIONS		
	Milimeters		
	Min.	Typ.	Max.
A	-	1.5	-
B	4.55	4.6	4.65
C	2.42	2.54	2.66
D	1.15	1.27	1.39
E	4.55	4.6	4.65
F	12.7	14.1	15.5
G	3.55	3.6	3.65
H	-	1.5	-
a	0.38	0.43	0.48
b	0.33	0.38	0.43

 Marking: type number
 Weight: 0.2 g