



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

MML1225

MXL1225

TECHNICAL SPECIFICATIONS OF SENSITIVE GATE SILICON CONTROLLED RECTIFIERS

VOLTAGE RANGE - 300 to 380 Volts

CURRENT - 0.8 Ampere

Description

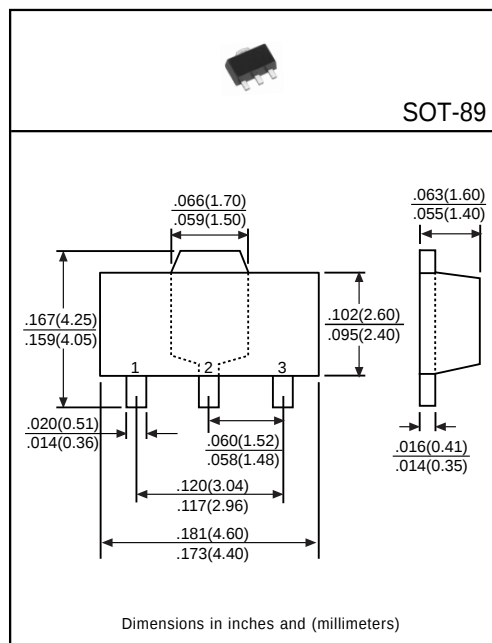
These Silicon Controlled Rectifiers are high performance planar diffused PNP devices. They are intended for low cost, high volume applications.

Pinning

- 1 = Gate
- 2 = Anode
- 3 = Cathode

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Characteristic	Symbol	Rating	Unit
Peak Repetitive Off-State Voltage($R_{GK}=1K\Omega$)	V_{DRM}	300 380	V
On-State RMS Current($T_C=40^{\circ}\text{C}$)	$I_{T(RMS)}$	0.8	A
Peak Gate Current($10\mu\text{s}$ Max)	I_{GM}	1	A
Gate Power Dissipation(20ms Max)	$P_{G(AV)}$	0.1	W
Reverse Peak Gate Voltage	V_{GRM}	8	V
Operating Junction Temperature	T_J	-40 to +125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-40 to +125	$^{\circ}\text{C}$



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Peak Repetitive Forward Off-State Blocking Current	I_{DRM}	-	-	5	μA	$V_{AK}=\text{Rated } V_{DRM} \text{ or } V_{RRM}$ $R_{GK}=1K\Omega$
Peak Forward On-State Voltage	V_{TM}	-	-	1.4	V	$I_{TM}=0.4\text{A Peak, } T_J=25^{\circ}\text{C}$
		-	-	2.2		$I_{TM}=0.8\text{A Peak, } T_J=25^{\circ}\text{C}$
Continuous DC Gate Trigger Current	I_{GT}	-	-	200	μA	$V_{AK}=7\text{V DC, } R_L=100\Omega$
Continuous DC Gate Trigger Voltage	V_{GT}	-	-	0.8	V	$V_{AK}=7\text{V DC, } R_L=100\Omega$
DC Holding Current	I_H	-	-	5	mA	$R_{GK}=1K\Omega$, Gate Open
DC Latching Current	I_L	-	-	6	mA	$R_{GK}=1K\Omega$, Gate Open
Critical Rate-of-Rise of Off-State Voltage	dv/dt	25	-	-	V/ μS	$V_D=0.67V_{DRM}$, $R_{GK}=1K\Omega$, $T_J=125^{\circ}\text{C}$
Critical Rate-of-Rise of Off-State Current	di/dt	30	-	-	A/ μS	$I_G=10\text{mA}$, $di_G/dt=0.1\text{A}/\mu\text{S}$, $T_J=125^{\circ}\text{C}$
Gate Controlled Delay Time	T_{gd}	-	-	0.5	μsec	$I_G=10\text{mA}$, $di_G/dt=0.1\text{A}/\mu\text{S}$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	100	-	-	$^{\circ}\text{C/W}$	-