



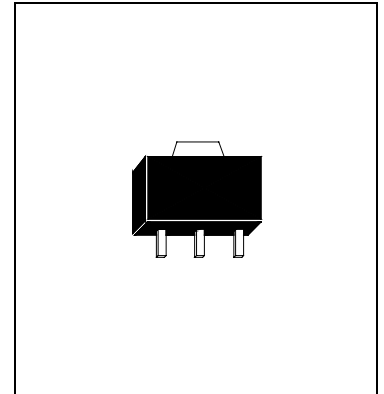
HMX1225

HMM1225

0.8A 300/380 VOLTAGE SCRS IGT<200uA

Description

The HMX1225/HMM1225 series silicon controlled rectifiers are high performance planner diffused PNP devices. These parts are intended for low cost high volume applications.



Absolute Maximum Ratings (Ta=25°C)

Parameter	Part No.	Symbol	Min.	Max.	Unit	Test Conditions
Repetitive Peak Off State Voltage	HMX1225	VDRM	380	-	V	Tj=40°C to 125°C (RGK=1K)
	HMM1225	VDRM	300	-	V	
On-State Current		IT(rms)	0.8	-	A	TC=40°C
Average On-State Current		IT(AV)	0.5	-	A	Half Cycle=180°,TC=40°C
Peak Reverse Gate Voltage		VGRM	8	-	V	IGR=10uA
Peak Gate Current		IGM	1	-	A	10us max
Gate Dissipation		PG(AV)	0.1	-	W	20ms max
Operating Temperature		Tj	-40	125	°C	
Storage Temperature		Tstg	-40	125	°C	
Soldering Temperature		Tsld	-	250	°C	1.6mm from case 10s max

Classification Of IGT

Rank	A	C
HMX1225	10-23 uA	17-55 uA
HMM1225	10-23 uA	17-55 uA

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Min	Max	Unit	Test Conditions
Off-State Leakage Current	IDRM	-	0.1	mA	@VDRM (RGK=1K), Tj=125°C
Off-State Leakage Current	IDRM	-	5	uA	@VDRM (RGK=1K), Tj=25°C
On-State Voltage	VT	-	1.4	V	at IT=0.4A, Tj=25°C
		-	2.2	V	at IT=0.8A, Tj=25°C
On-State Threshold Voltage	VT(TO)	-	0.95	V	Tj=125°C
On-State Slops Resistance	rT	-	600	Ohm	Tj=125°C
Gate Trigger Current	IGT	-	200	uA	VD=7V
Gate Trigger Voltage	VGT	-	0.8	V	VD=7V
Holding Current	IH	-	5	mA	RGK=1K(ohm)
Latching Current	IL	-	6	mA	RGK=1K(ohm)
Critical Rate of Voltage Rise	dv/dt	25	-	V/us	VD=0.67*VDRM(RGK=1K), Tj=125°C
Critical Rate of Current Rise	di/dt	30	-	A/us	IG=10mA,diG/dt=0.1A/us, Tj=125°C
Gate Controlled Delay Time	tgd	-	500	ns	IG=10mA,diG/dt=0.1A/us
Commutated Turn-off Time	tg	-	200	us	Tc=85°C,VD=0.67*VDRM VR=35V,IT=IT(AV)
Thermal Resistance junc.to case	Rθjc	100	-	K/W	
Thermal Resistance junc. to amb	Rθja	200	-	K/W	



SOT-89 Dimension

HMX1225 Marking:

Date Code →

1	2	5

 H M X

Laser Marking

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HMM1225 Marking:

Date Code →

1	2	5

 H M M

Laser Marking

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Style: Pin 1.Gate 2.Anode 3.Cathode

3-Lead SOT-89 Plastic Surface Mounted Package
HSMC Package Code: M

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1732	0.1811	4.40	4.60	F	0.0583	0.0598	1.48	1.52
B	0.1594	0.1673	4.05	4.25	G	0.1165	0.1197	2.96	3.04
C	0.0591	0.0663	1.50	1.70	H	0.0551	0.0630	1.40	1.60
D	0.0945	0.1024	2.40	2.60	I	0.0138	0.0161	0.35	0.41
E	0.0141	0.0201	0.36	0.51					

- Notes:**
- 1.Dimension and tolerance based on our Spec. dated May. 05,1996.
 - 2.Controlling dimension: millimeters.
 - 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 - 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

Material:

- Lead: 42 Alloy ; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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