

Silicon Planar PNP Thyristor (4A SCR)

DESCRIPTION

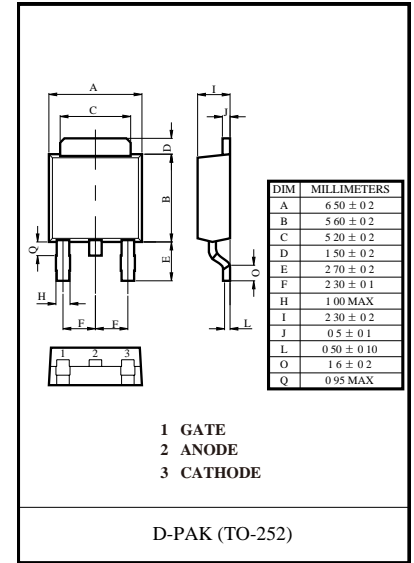
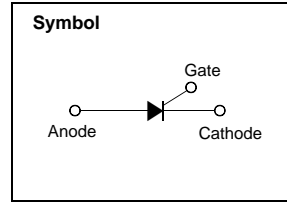
Thyristor in a TO-252 Package.

FEATURES

- The consumption level provide reliable applications, such as temperature, lighting, speed, etc.

APPLICATIONS

- Applied to high Voltage control circuit.



Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Test Conditions	Rating	Unit	
Repetitive peak off-state voltages	V_{DRM} , V_{RRM}	$R_{GK}=1K$ $T_C=-40\sim 110^{\circ}C$	MCR703A MCR706A MCR708A	100 400 600	V
RMS on-state current	$I_{T(RMS)}$	$T_C=80^{\circ}C$		4	A
Average on-state current	$I_{T(AV)}$	$T_C=80^{\circ}C$		2.55	A
Non-repetitive peak on-state current	I_{TSM}	1/2 Cycle, Sine Wave, 60Hz, $T_J=110^{\circ}C$		20	A
I_t^2 for fusing	I_t^2	$t=8.3ms$		1.65	A ² S
Peak gate power	P_{GM}	$T_C=80^{\circ}C$		500	mW
Peak Average power	$P_{G(AV)}$	$T_C=80^{\circ}C$		100	mW
Peak gate current	I_{GM}	$T_C=80^{\circ}C$		0.2	A
Junction Temperature	T_j			-40~+110	°C
Storage Temperature Range	T_{stg}			-40~+150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Repetitive peak off-state current	I_{DRM} , I_{RRM}	$V_{AK}=\text{Rated } V_{DRM} \text{ or } V_{RRM}$ $R_{GK}=1K\Omega$	$T_C=25^{\circ}C$		10	μA	
			$T_C=110^{\circ}C$		100		
On-state voltage	V_{TM}	$I_{TM}=4.0A$ $tp=380\mu s$			2.2	V	
Gate trigger current	I_{GT}	$V_{AK}=6.0V_{dc}$ $R_L=100\Omega$	$T_C=25^{\circ}C$		15	200	μA
			$T_C=-40^{\circ}C$		35	500	
Gate trigger voltage	V_{GT}	$V_{AK}=6.0V_{dc}$ $R_L=100\Omega$	$T_C=25^{\circ}C$	0.4	0.60	0.80	V
			$T_C=-40^{\circ}C$	0.5	0.75	1.00	
Holding current	I_H	$V_{AK}=12.0V_{dc}$ $R_{GK}=1K\Omega$	$T_C=25^{\circ}C$		0.19	3.0	mA
			$T_C=-40^{\circ}C$		0.33	6.0	
			$T_C=110^{\circ}C$		0.07	2.0	
Latching current	I_L	$V_{AK}=12.0V_{dc}$ $I_G=20mA$	$T_C=25^{\circ}C$		0.20	5.0	mA
			$T_C=-40^{\circ}C$		0.35	7.0	
Critical rate of rise of off-state voltage	dv/dt	$V_{AK}=\text{Rated } V_{DRM}$, $R_{GK}=1K\Omega$ $T_C=110^{\circ}C$		8.0		V/us	



Typical Characteristics

