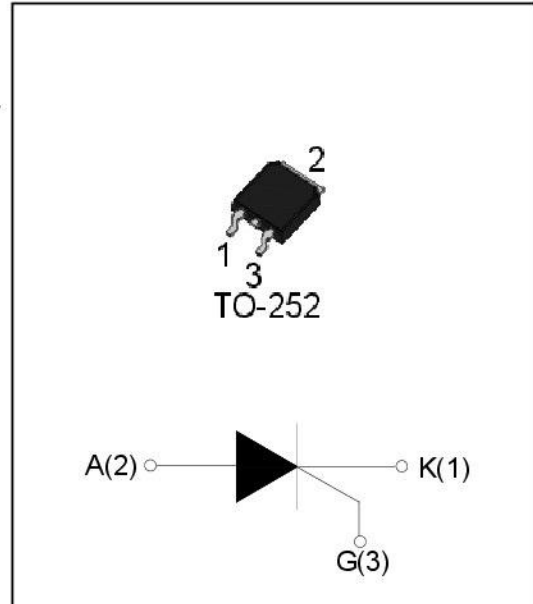




**DESCRIPTION: 2P4M TO-252**

The 2P4M SCR series provide high dv/dt rate with strong resistance to electromagnetic interface. They are especially recommended for use on residual current circuit breaker, straight hair, igniter etc.



**MAIN FEATURES**

Symbol	Value	Unit
$I_{T(RMS)}$	2	A
$I_{GT}$	$\leq 60$	$\mu A$
$V_{DRM}/V_{RRM}$	600	V

**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Value	Unit	
Storage junction temperature range	$T_{stg}$	-40-150	$^{\circ}C$	
Operating junction temperature range	$T_j$	-40-110	$^{\circ}C$	
Repetitive peak off-state voltage	$V_{DRM}$	600	V	
Repetitive peak reverse voltage	$V_{RRM}$	600	V	
RMS on-state current	$I_{T(RMS)}$	TO-92 ( $T_c=63^{\circ}C$ )	2	A
		SOT-89 ( $T_c=75^{\circ}C$ )		
		TO-126/SOT-223 ( $T_c=80^{\circ}C$ )		
		TO-252 TO-251 ( $T_c=90^{\circ}C$ )		
Non repetitive surge peak on-state current (tp=10ms)	$I_{TSM}$	20	A	
$I^2t$ value for fusing (tp=10ms)	$I^2t$	2	$A^2s$	
Critical rate of rise of on-state current	dI/dt	50	$A/\mu s$	
Peak gate current (tp=20 $\mu s$ , $T_j=110^{\circ}C$ )	$I_{GM}$	0.2	A	

Peak gate power (tp=20μs, Tj=110°C)	P <sub>GM</sub>	0.5	W
Average gate power dissipation(Tj=110°C)	P <sub>G(AV)</sub>	0.1	W

### ELECTRICAL CHARACTERISTICS (Tj=25°C unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I <sub>GT</sub>	V <sub>D</sub> =12V R <sub>L</sub> =33Ω	-	30	60	μA
V <sub>GT</sub>		-	0.6	0.8	V
V <sub>GD</sub>	V <sub>D</sub> =V <sub>DRM</sub> Tj=110°C	0.2	-	-	V
I <sub>L</sub>	I <sub>G</sub> =1.2 I <sub>GT</sub>	-	-	6	mA
I <sub>H</sub>	I <sub>T</sub> =0.05A	-	-	5	mA
dV/dt	V <sub>D</sub> =2/3V <sub>DRM</sub> Tj=110°C R <sub>GK</sub> =1KΩ	20	-	-	V/μs

### STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V <sub>TM</sub>	I <sub>T</sub> =4A tp=380μs	Tj=25°C	1.5	V
I <sub>DRM</sub>	V <sub>D</sub> =V <sub>DRM</sub> V <sub>R</sub> =V <sub>RDM</sub>	Tj=25°C	5	μA
I <sub>RDM</sub>		Tj=110°C	100	μA

### THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
R <sub>th(j-c)</sub>	junction to case	TO-92	10	°C/W
		TO-126	7.0	
		SOT-89	8.3	
		TO-251 TO-252	6.5	
		SOT-223	7.3	

