

ABSTRACT

The AM-SJST60 TRIAC is suitable for general purpose AC switching, and can be used as an ON/OFF function in applications such as static relays, heating regulation, induction motor circuitry, light dimmers, motor speed control, and can be used in a diverse number of other electrical designs.

MAIN FEATURES

Parameter	Value	Unit
I_{TRMS}	= 60	A
V_{DRM}/V_{RRM}	>= 800	V
$V_{TM @80A}$	< 1.75	V

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage temperature range	Tstg	-40 to +150	°C
Operating junction temp. range	Tj	-40 to +125	°C
Nonrepetitive surge peak on-state current full cycle, Tj=25°C, f=50Hz, t=20ms	I_{TSM}	550	A
I^2t Value for fusing, tp=10ms	I^2t	880	A ² s
Critical rate of rise of on-state current $I_G=2I_{GT}$, trs=100ns, f=120Hz, Tj=125°C	di/dt	50	A/μs
Peak gate current @ tp=20μs, Tj=125°C	I_{GM}	4	A
Peak gate power dissipation @ tp=20μs, Tj=125°C	P_{GM}	10	W
Average gate power dissipation @ Tj=125°C	P_{GAV}	1	W

ELECTRICAL CHARACTERISTICS

Test Condition	Symbol	Value/Range	Unit
$V_D=12V$, and $R_L=33\Omega$	I_{GT1}	10 to 20	mA
	I_{GT2}, I_{GT3}	20 to 45	mA
	V_{GT}	1.2	V
$V_D=V_{DRM}$, $R_L=3.3K\Omega$, Tj=125°C	V_{GD}	0.2	V
$I_G=1.2I_{GT}$	I_{L1}, I_{L3}	< 60	mA
	I_{L2}	< 120	mA
$I_T=100mA$	I_H	< 60	mA
$V_D=67\% V_{DRM}$ gate open, Tj=125°C	dV/dt	> 500	V/μs
Without snubber, Tj=125°C	(di/dt)c	5 to 20	A/ms

THERMAL RESISTANCE

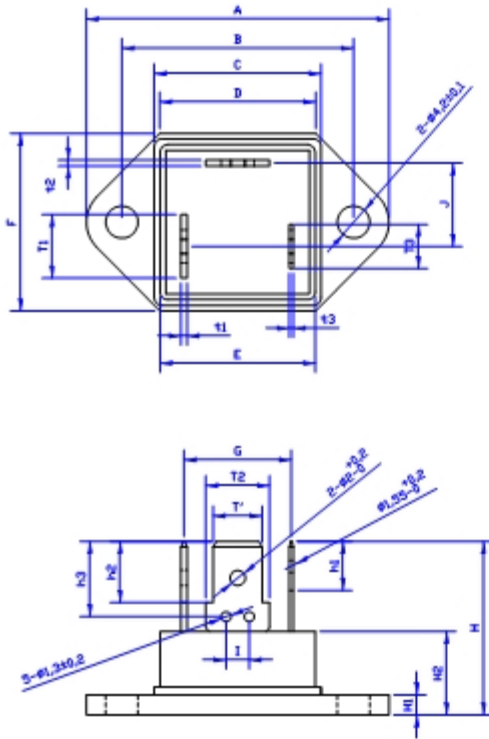
Symbol	Pkg.	Value	Unit
$R_{th(J-C)}$	TG-C	0.8	°C/W

*JUNCTION TO CASE (AC)

AM-SJST60

Bidirectional Triode Thyristor (TRIAC)

TG-C PACKAGE DIMENSIONS



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A			39.2			1.543
B	29.8	30.0	30.2	1.173	1.181	1.189
C			21.6			0.85
D			20.2			0.795
E			20.1			0.791
F			23			0.906
T1, T2		8.25			0.325	
T3		5.7			0.224	
T'		6.35			0.25	
t1, t2		0.8			0.031	
t3		0.5			0.020	
G		13.9			0.547	
H1		2.6			0.102	
H2		10.8			0.425	
H			22.5			0.886
h1	6.2	6.35	6.5	0.244	0.25	0.256
h2	7.8	7.95	8.1	0.307	0.313	0.319
h3	9.45	9.75	10.05	0.372	0.384	0.396
I	2.7	3.0	3.3	0.106	0.118	0.130
J		10.8			0.425	

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