

Features:

- Structure: single mesa triacs chip in 4 quadrants
- Technology: mesa glass passivation technology and multilayer metallization technology

Typical Applications:

The triacs are suitable for low power AC switching applications and phase controlled circuits, such as fan speed, lighting control and so on.

Absolute Maximum Ratings (Packaged into TO-251, unless otherwise specified, $T_C = 25^\circ\text{C}$)

Parameter	Test Condition	Symbol	Values	Unit
Operating junction temperature range		T_j	-40-125	$^\circ\text{C}$
Repetitive peak off-state voltage	$T_j = 25^\circ\text{C}$	V_{DRM}	600/800	V
Repetitive peak reverse voltage	$T_j = 25^\circ\text{C}$	V_{RRM}	600/800	V
RMS on-state current	$T_C = 110^\circ\text{C}$	$I_{\text{T(RMS)}}$	8	A
Non repetitive surge peak on-state current	$t_p = 20\text{ms}$	I_{TSM}	65	A
I^2t value for fusing	$t_p = 10\text{ms}$	I^2t	21	A^2s
Critical rate of rise of on-state current	$I_G = 2 \times I_{\text{GT}}$	di/dt	50	$\text{A}/\mu\text{s}$

Electrical Characteristics (Packaged into TO-251, unless otherwise specified, $T_C = 25^\circ\text{C}$)

Parameter	Test Condition	Symbol	Values				Unit	
			D	E	C	F		
Triggering gate current	$V_D = 12\text{V}$	I - II - III	I_{GT}	≤ 5	≤ 10	≤ 25	≤ 25	mA
		IV		≤ 10	≤ 25	≤ 50	≤ 70	
Latching current	$I_G = 1.2 I_{\text{GT}}$	I - III - IV	I_L	≤ 10	≤ 20	≤ 40	≤ 50	mA
		II		≤ 20	≤ 30	≤ 50	≤ 70	
Holding current	$I_T = 100\text{mA}$	ALL	I_H	≤ 10	≤ 15	≤ 30	≤ 40	mA
Triggering gate voltage	$V_D = 12\text{V}$	ALL	V_{GT}	≤ 1.3				V
Non triggering gate voltage	$V_D = V_{\text{DRM}}$ $T_j = 125^\circ\text{C}$ $R_L = 3.3\text{K}\Omega$	ALL	V_{GD}	≥ 0.2				V



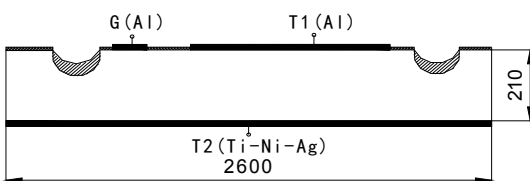
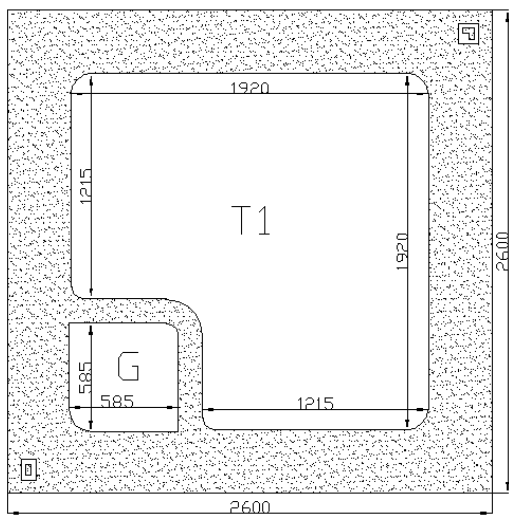
Critical rate of rise of voltage	$V_D=2/3V_{DRM}$ $T_j=125^\circ\text{C}$ Gate open	dV/dt	≥20	≥50	≥200	≥500	V/μs
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Static Characteristics

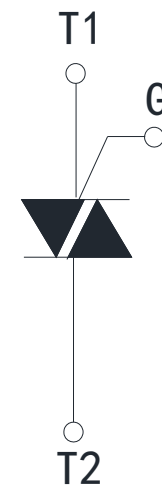
parameter	Test Condition	Symbol	Values	Unit
Peak on-state voltage	$I_{TM}=10\text{A}$ $t_p=380\mu\text{s}$	V_{TM}	≤1.6	V
Repetitive peak off-state current	$V_D=V_{DRM}$	$T_j=25^\circ\text{C}$	≤5	μA
		$T_j=125^\circ\text{C}$	≤1	mA
Repetitive peak reverse current	$V_R=V_{RRM}$	$T_j=25^\circ\text{C}$	≤5	μA
		$T_j=125^\circ\text{C}$	≤1	mA

Mechanical Characteristics

Wafer size	4 inch
Wafer thickness	210 μm
Chip size	2.6 mm × 2.6 mm
Front (Gate and Cathode) metallization	Al
Back (Anode) metallization	Ti-Ni-Ag
Chips / tray	1034 pcs



BM137 (Unit: μm)



chip symbol



Ordering Information

BM

Bright Moon Semiconductor Co.,Ltd

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$I_{T(RMS)}:8A$

D

D: $I_{GT1-3} \leq 5mA$ $I_{GT4} \leq 10mA$
E: $I_{GT1-3} \leq 10mA$ $I_{GT4} \leq 25mA$
C: $I_{GT1-3} \leq 25mA$ $I_{GT4} \leq 50mA$
F: $I_{GT1-3} \leq 25mA$ $I_{GT4} \leq 70mA$