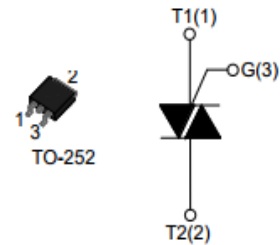


BT137S TRIACS TO-252

● Product features

P⁺ on the through diffusion isolation,
 Single mesa structure (Single Mesa),
 Table glass passivation process,
 Gate logic level trigger
 Application of IC drive directly
 The applicable model: BT137S



● The main purposes

Fan speed control,
 The dimming circuit, Hair straightener
 AC phase controlled circuit of air-conditioning

● Package

TO-252

● Main Feature (T_j=25°C)

Symbol	Value	Unit
I _T (RMS)	4.0	A
V _{DRM} / V _{RPM}	600	V
V _{TM}	1.7	V

● Absolute ratings (Limiting Values)

Symbol	Parameter	Value	Unit
I _{TSM}	Non repetitive surge peak on-state Current (tp=10ms)	25	A
I ² t	(tp=10ms)	3.1	A ² S
di/dt	I _G =2IGT, tr≤100ns, T _j =125°C	I	50
		II	50
		III	50
		IV	10
I _{GM}	Peak gate current(tp=20us)	2	A
P _{GM}	Peak gate power	5	W
P _{G(AV)}	Average gate power	0.5	W
T _{stg}	Storage temperature	-40--+150	°C
T _j	Operating junction temperature	-40--+125	

● **Thermal Resistances**

Symbol	Parameter		Value	Unit
Rth (j-c)	Junction to case	TO-220F	3.3	°C/W
		TO-220B/TO-220C	3.0	
		TO-251/ T0-252/TO-126	4.0	
		TO-126P	4.1	

● **Electrical characteristics (T_j=25°C unless otherwise stated)**

Symbol	Test Conditions		Value	Unit	
I _{GT}	V _D =12V, I _{GT} =0.1A	I II III	≤10	mA	
		IV	≤25		
I _{DRM}	V _D =V _{DRM}	T _j =25°C	≤10	μA	
		T _j =125°C	≤0.5	mA	
I _{RPM}	V _D =V _{RPM}	T _j =25°C	≤10	μA	
		T _j =125°C	≤0.5	mA	
I _L	V _D =12V, I _{GT} =0.1A	I II III	≤10	≤15	mA
		IV	≤15	≤20	
V _{GT}	V _D =12V		≤1.5	V	
V _{GD}	V _D =V _{DRM} , T _j =125°C		≥0.2	V	
I _H	V _D =12V, I _T =100mA		≤10	≤15	mA
V _{TM}	I _{TM} =5A, tp=380 μs		≤1.6	V	
dV/dt	V _D =67%V _{DRM} , GateOpen, T _j =125°C		≥5	≥50	v/μs

● Measure of package
TO-252

