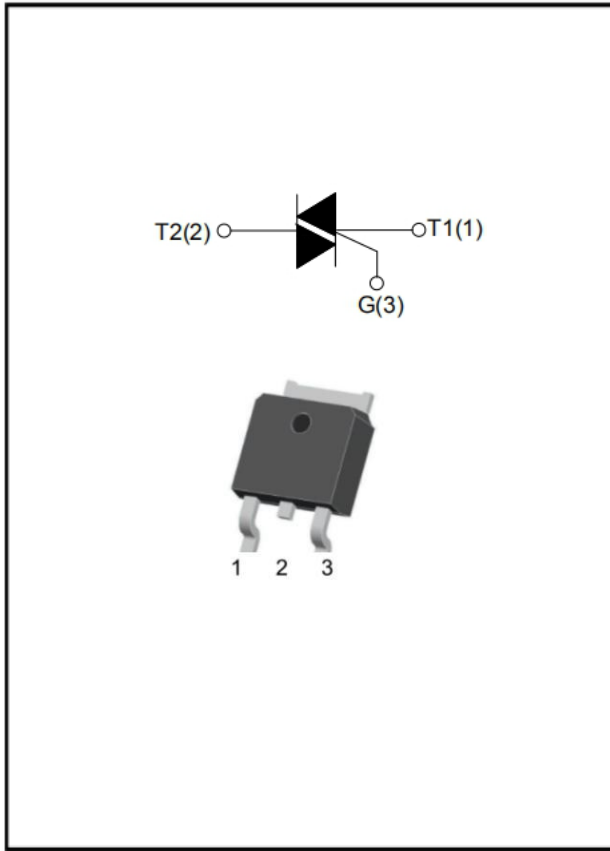


4A 4Q Triac



Features

- On-state rms current, $I_{T(RMS)}$ 4 A
- Repetitive peak off-state voltage, V_{DRM}/V_{RRM} 800 V
- Triggering gate current, I_{GT} (Q1) 5 mA

Applications

- General purpose switching and phase control
- General purpose switching

Mechanical Data

- Case Material: "Green" Molding Compound
- Package: TO-252-1

DEVICE	PACAKGE
ACYMB0410-08D1	TO-252-1

Main Characteristics

SYMBOL	LIMITS	UNIT
$I_{T(RMS)}$	4	A
V_{DRM}/V_{RRM}	800	V
I_{GT}	5	mA

Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Storage junction temperature range	T_{stg}	-40~150	°C
Operating junction temperature range	T_j	-40~125	°C
Repetitive surge peak Off-state voltage ($T_j=25^{\circ}C$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^{\circ}C$)	V_{RRM}	800	V
RMS on-state current	$I_{T(RMS)}$	4	A
Non-repetitive surge peak on-state current (full sine wave, $t_p=20ms, T_j=25^{\circ}C$)	I_{TSM}	25	A
I^2t value for fusing ($t_p=10ms$)	I^2t	6.1	A ² s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$)	di/dt	I - II - III	50
		IV	10
Peak gate current	I_{GM}	2	A
Average gate power dissipation	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	5	W



ACYMB0410-08D1

■Electrical Characteristics (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	QUADRANT	MIN	TYP	MAX
Gate trigger current	IGT	mA	VD=12V, RL=33Ω	I - II - III			5
				IV			10
Gate trigger voltage	VGT	V	VD=12V, RL=33Ω	I - II - III - IV			1.3
Non-triggering gate voltage	VGD	V	VD=VDRM	I - II - III - IV	0.2		
Holding current	IH	mA	IT=100mA	I - II - III - IV			10
Latching current	IL	mA	IG=3 IGT	I - III - IV			10
				II			15
Rate of rise of off-state voltage	dV/dt	V/μs	VD=0.66×VDRM Tj=125°C Gate open	I - II - III - IV	20		

■Static Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MAX
Peak on-state voltage	VTM	V	ITM=5.5A tp=380μs	1.6
Peak off-state current Peak reverse current	IDRM IRRM	μA	VDRM= VRRM, Tj=25°C	5
		mA	VDRM= VRRM, Tj=125°C	0.5

■Thermal Resistance

PARAMETER		SYMBOL	UNIT	Pacakge	Value
Thermal Resistance (Typical)	Junction to case	RθJ-C	°C/W	TO-252-1	2.8

■ Characteristics (Typical)

FIG.1: Maximum power dissipation versus RMS on-state current

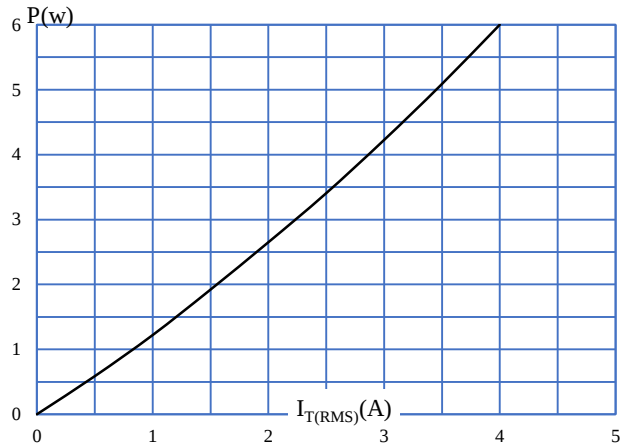


FIG.2: RMS on-state current versus case temperature

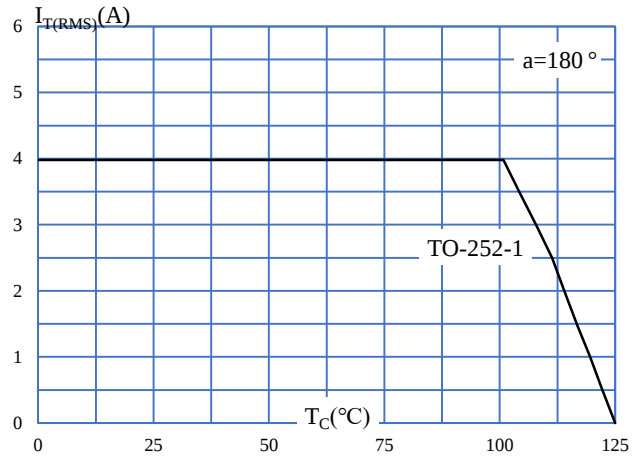


FIG.3: Surge peak on-state current versus number of cycles

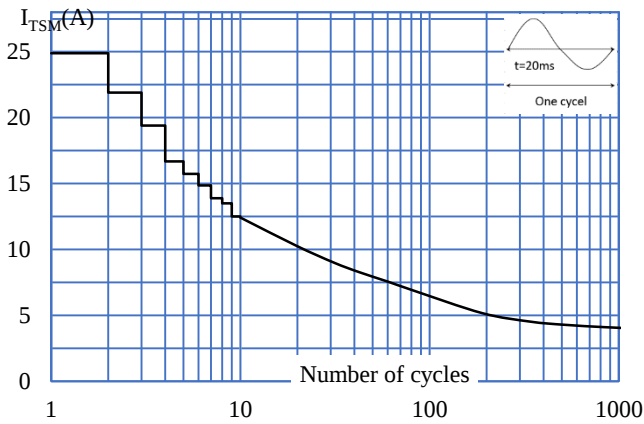


FIG.4: On-state haracteristics(maximum values)

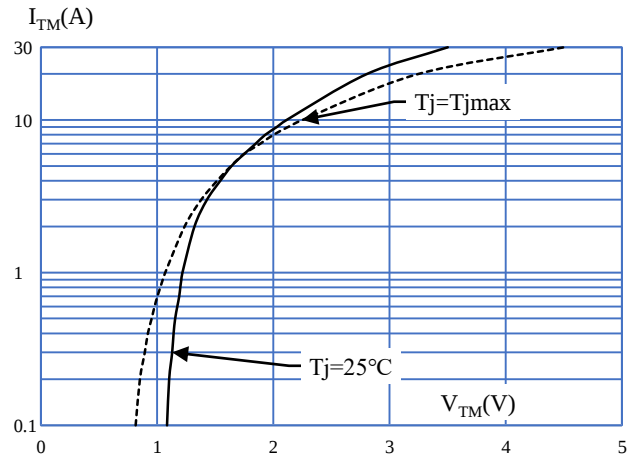


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20ms$, and corresponding value of $I_2 t$ (I -II -III: $dI/dt < 50A/\mu s$; IV: $dI/dt < 10A/\mu s$)

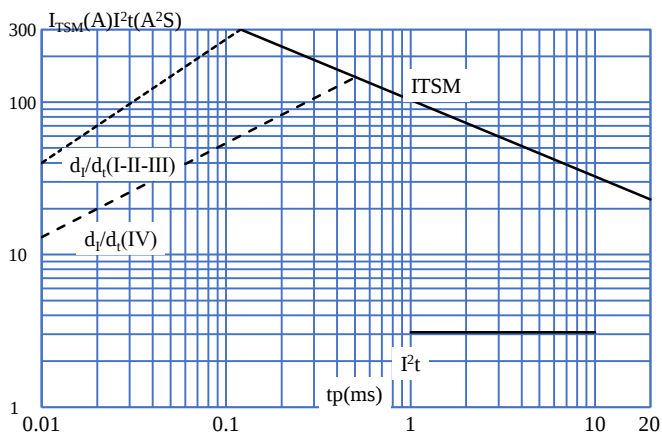


FIG.6: Relative variations of gate trigger current versus junction temperature

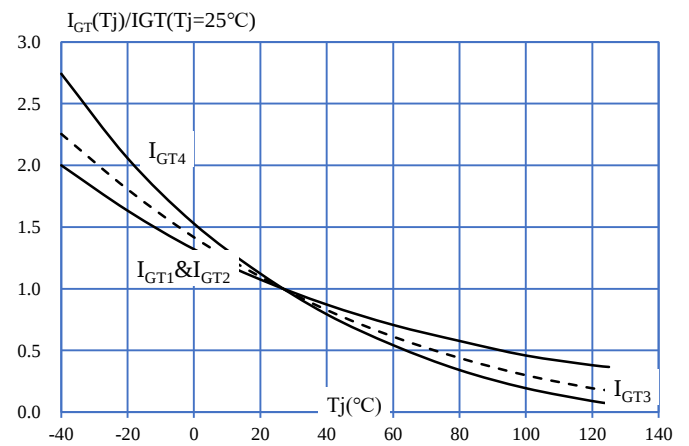


FIG.7: Relative variations of holding current versus junction temperature

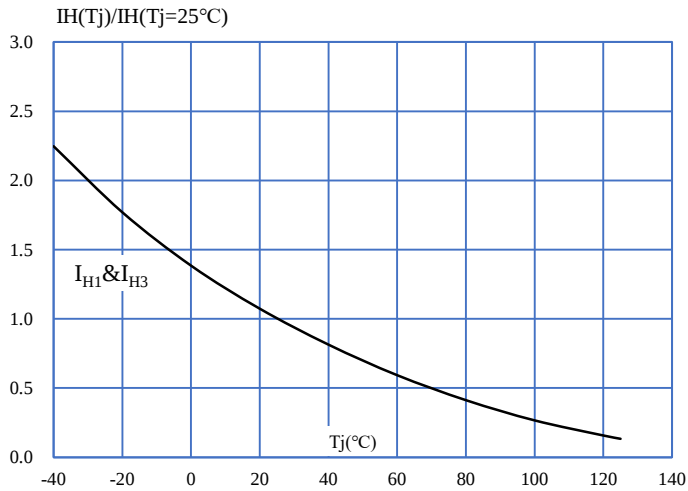
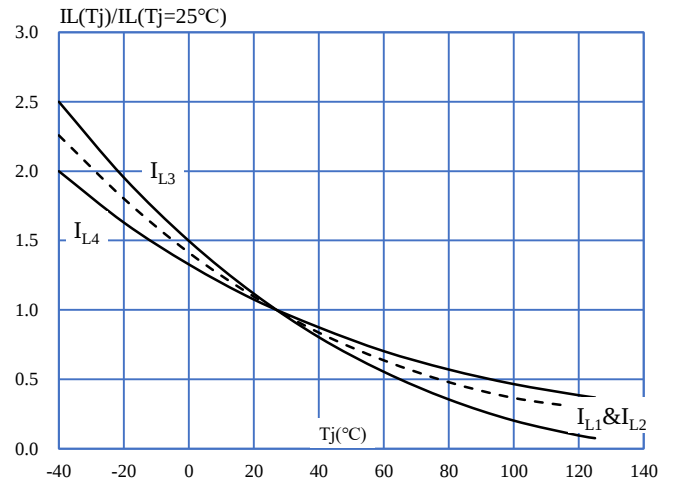
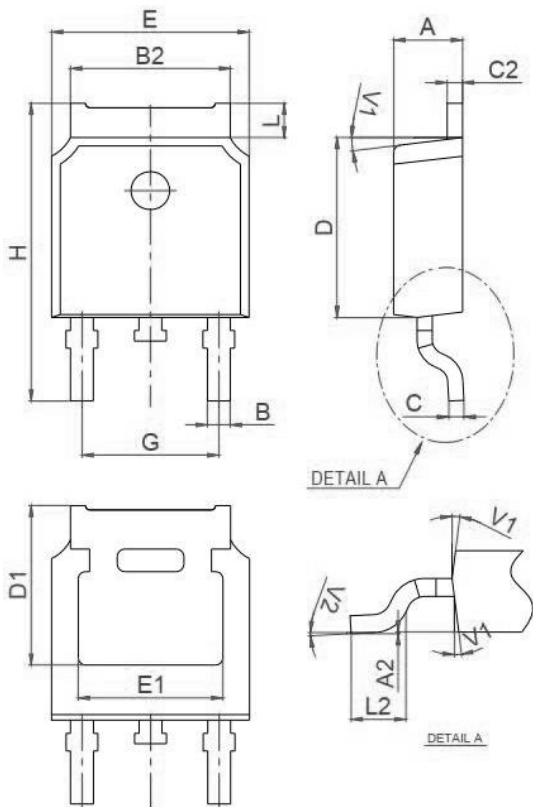


FIG.8: Relative variations of latching current versus junction temperature



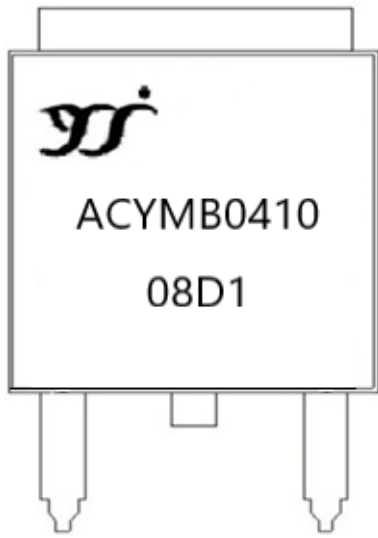
■ Outline Dimensions



Symbol	Min.(mm)	Typ.(mm)	Max.(mm)
A	2.2		2.4
A2	0		0.1
B	0.66		0.86
B2	5.1		5.46
C	0.46		0.58
C2	0.44		0.58
D	5.9		6.3
D1		5.30	
E	6.4		6.8
E1	4.63		
G	4.372		4.772
H	9.8		10.4
L	0.98		1.21
L2	1.35		1.65
V1		7°	
V2	0°		6°



■ Marking information



(TO-252-1 Package)



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