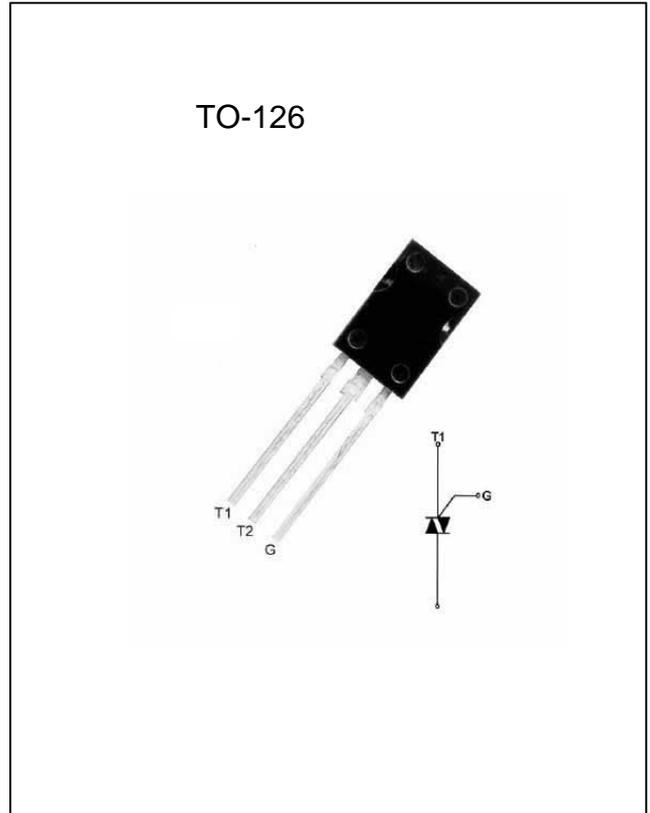


RD134 Series 4A TRIACS
DESCRIPTION:

- P+ Isolation Diffusion
- Single Mesa
- Glass Passivated
- Sensitive gate triacs in a plastic envelope
- Intended for use in general purpose bidirectional switching and phase control applications; These devices are intended to be interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits

MAIN FEATURES

Symbol	Value	Unit
IT(RMS)	4	A
VDRM/VRRM	600/800	V
V _{TM}	≤1.7	V


ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage junction temperature range		T _{stg}	-40 to +150	°C
Operating junction temperature range		T _j	-40 to +125	°C
Repetitive Peak Off-state Voltage	T _j =25°C	V _{DRM}	600/800	V
Repetitive Peak Reverse Voltage	T _j =25°C	V _{RRM}	600/800	
Non repetitive Surge Peak Off-state Voltage	tp=10ms, T _j =25°C	V _{DSM}	700/900	V
Non repetitive Peak Reverse Voltage		V _{RSM}	700/900	
RMS on-state current (full sine wave)	T _c =110°C	I _{T(RMS)}	4	A
Non repetitive surge peak on-state current (full cycle, T _j =25°C)	f = 60 Hz t=16.7ms	I _{TSM}	27	A
	f = 50 Hz t=20ms		25	
I ² t Value for fusing	tp=10ms	I ² t	3.1	A ² s
Critical rate of rise of on-state current I _T ≤6A, I _G =2×I _{GT} , tr≤100 ns, f=120Hz, T _j =125°C	T2+ G+	di/dt	50	A/μs
	T2+ G-		50	
	T2- G-		50	
	T2- G+		10	
Peak gate current	tp=20us, T _j =125°C	I _{GM}	2	A
Average gate power dissipation	T _j =125°C	P _{G(AV)}	0.5	W

ELECTRICAL CHARACTERISTICS(T_j=25°C unless otherwise specified)

Symbol	Test Condition	Quadrant		RD134		Unit
				D	E	
I _{GT}	V _D =12V R _L =33Ω	I-II-III IV	MAX.	5 10	10 25	mA
V _{GT}		ALL	MAX.	1.5		V
V _{GD}	V _D =V _{DRM} R _L =3.3KΩ T _j =125°C	ALL	MIN.	0.2		V
I _L	I _G =1.2I _{GT}	I-III-IV	MAX.	15	20	mA
		II	MAX.	20	35	mA
I _H	I _T =100mA		MAX.	15	20	mA
dV/dt	V _D =67%V _{DRM} gate open T _j =125°C		MIN.	5	50	V/μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V _{TM}	I _{TM} =5A, t _p =380μs	T _j =25°C	1.7	V
I _{DRM} I _{RRM}	V _D =V _{DRM} V _R =V _{RRM}	T _j =25°C	5	μA
		T _j =125°C	0.5	mA

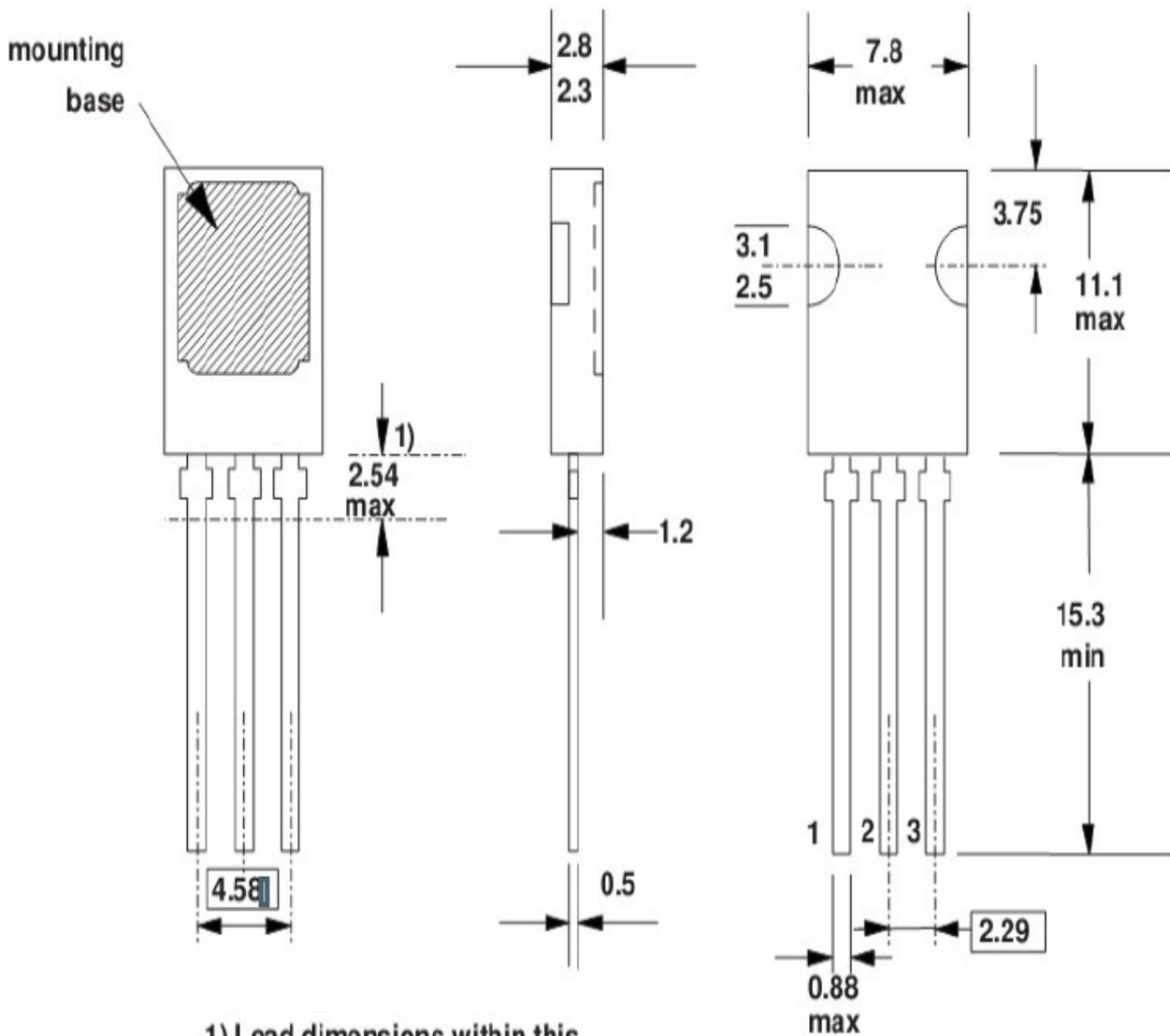
THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
R _{th} (J-C)	Junction to Case(AC)		4.1	°C/W

ORDERING INFORMATION

<p>RD 134 - 600 E</p> <p>RICKY TRIAC SERIES</p> <p>I_{T(RMS)}: 4A</p>	<p>IGT Glass</p> <p>06:V_{DRM}/V_{RRM} ≥ 600V 08:V_{DRM}/V_{RRM} ≥ 800V</p>
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PACKAGE MECHANICAL DATA



1) Lead dimensions within this zone uncontrolled.

FIG.1: Maximum power dissipation versus RMS on-state current (full cycle)

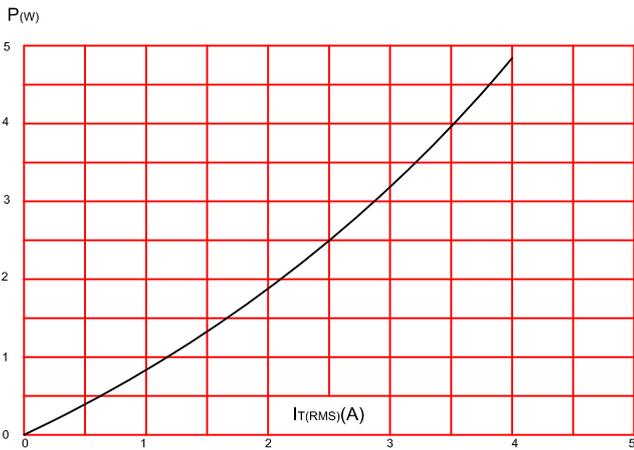


FIG.2: RMS on-state current versus case temperature (full cycle)

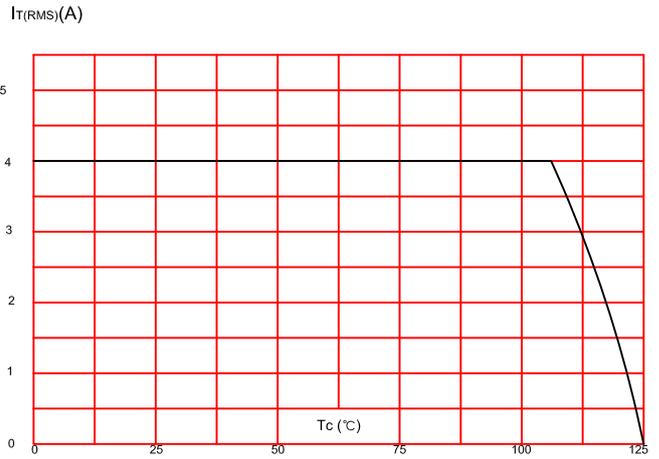


FIG.3: On-state characteristics (maximum values).

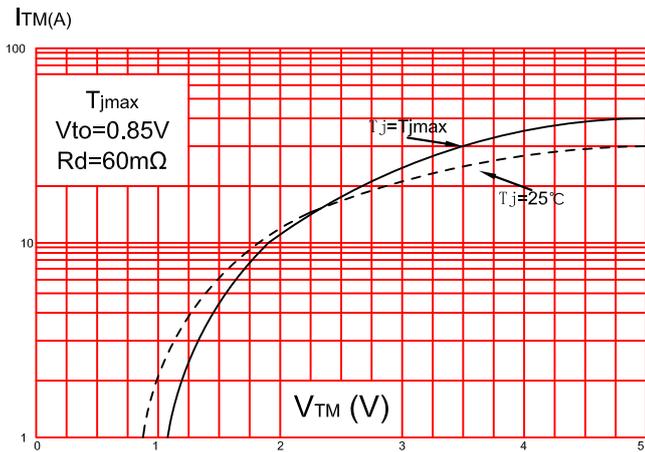


FIG.4: Surge peak on-state current versus number of cycles.

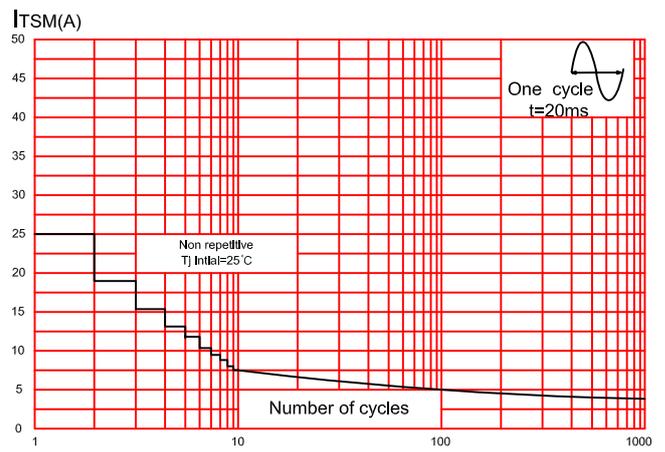


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10ms$, and corresponding value of I^2t .

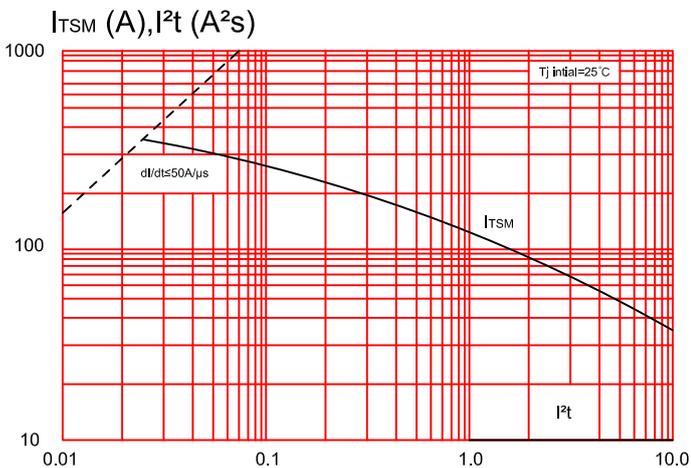


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature (typical values)

