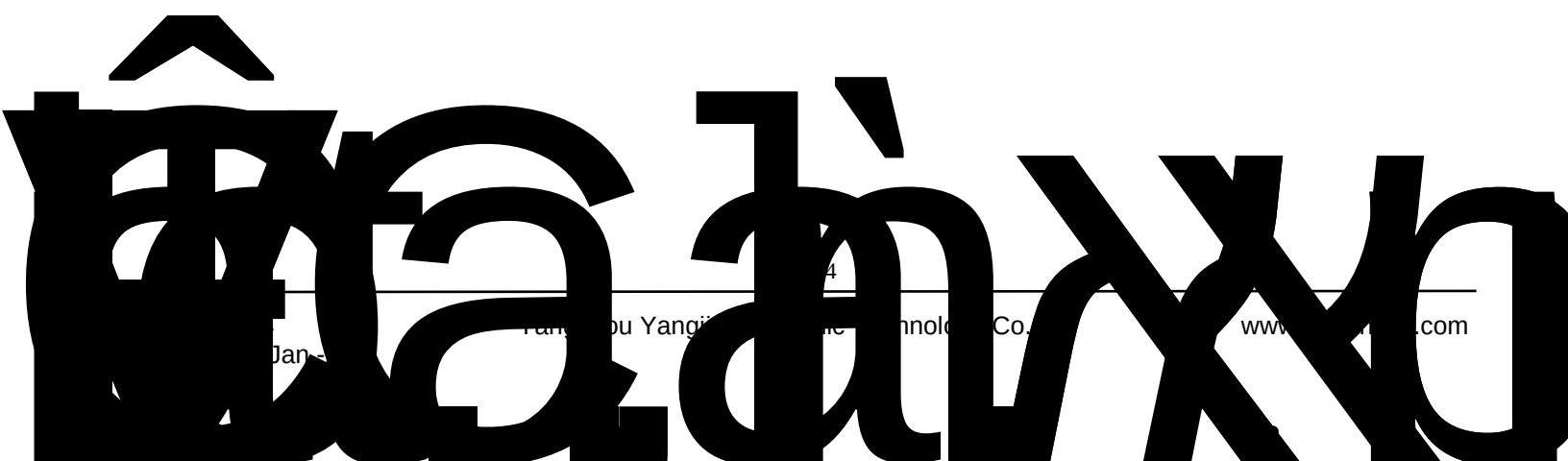




ELECTRICAL CHARACTERISTICS AND RATINGS KK1500-FAST SWITCHING THYRISTOR**Gating**

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Peak gate power dissipation	P_{GM}		20		W	
Average gate power dissipation	$P_{G(AV)}$		4		W	
Gate-trigger current	I_{GT}		150		mA	$V_D=12V; R_L=30\Omega; T_j=+25^\circ C$
Gate- trigger voltage	V_{GT}	0.70	2.5		V	$V_D=12V; R_L=30\Omega; T_j=+25^\circ C$
Peak negative voltage	V_{GRM}		5		V	

Dynamic

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Delay time	t_d		3.0	2.5	s	$I_{TM}=1000A; V_D=67\%V_{DRM}$ Gate pulse: $V_G=30V; R_G=10\Omega$; $t_r=0.1\text{ s}; t_p=20\text{ s}$
Turn-off time (with $V_R = -5\text{ V}$)	t_q		70		s	$I_{TM}=1500\text{ A}; di/dt=-25A/\text{ s};$ $V_R=50\text{ V}; dv/dt=30V/\text{ s};$ $V_D=67\%V_{DRM}; T_j=125^\circ C$
Reverse recovery charge	Q_{rr}				C	$I_{TM}=1500\text{ A}; di/dt=-10A/\text{ s};$ $V_R=50\text{ V}; T_j=125^\circ C$

THERMAL AND MECHANICAL CHARACTERISTICS AND RATINGS

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T_j	-40	+125		$^\circ C$	
Storage temperature	T_{stg}	-40	+140		$^\circ C$	
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.016		$^\circ C/W$	Double sided cooled
Thermal resistance - case to heatsink	$R_{\Theta(c-s)}$		0.005		$^\circ C/W$	Double sided cooled
Mounting force	F	25	31	28	kN	
Weight	m			0.65	kg	

* Mounting surfaces smooth, flat and greased

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