

KP900-POWER THYRISTOR

4600-5200 V_{DRM}

FREE FLOATING TYPE THYRISTOR FOR PHASE CONTROL APPLICATIONS

Features:

ELECTRICAL CHARACTERISTICS AND RATINGS

Blocking - Off State

Device Type	V_{RRM} (1)	V_{DRM} (1)	V_{RSM} (1)
KP900/46	4000	4000	4600
KP900/48	4200	4200	4800
KP900/50	4400	4400	5000
KP900/52	4600	4600	5200

V

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}		200		mA	$V_D = 12\text{ V}; R_L = 3\text{ ohms}; T_j = +25\text{ }^\circ\text{C}$
Gate- trigger voltage	V_{GT}	0.7	2.6		V	$V_D = 12\text{ V}; R_L = 3\text{ ohms}; T_j = +25\text{ }^\circ\text{C}$
Peak negative voltage	V_{GRM}		10		V	

Dynamic

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Delay time	t_d			3.0	s	$I_{TM}=100\text{A}; V_D=67\%V_{DRM}$ Gate pulse: $V_G=30\text{V}; R_G=10\text{ohms};$ $t_r=0.1\text{ s}; t_p=20\text{ s}$
Turn-off time (with $V_R = -5\text{ V}$)	t_q			600	s	$I_{TM} = 2000\text{A}; di/dt = -10\text{A/ s};$ $V_R = 100\text{V}; dv/dt=30\text{V/ s};$ $V_D = 67\%V_{DRM}; T_j=125$
Reverse recovery charge	Q_{rr}		2000		C	$I_{TM}=2000\text{A } di/dt=-10\text{A/ s};$ $V_R=100\text{V}; T_j=125$

THERMAL AND MECHANICAL CHARACTERISTICS

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