

S15-XX00
FAST TURN-OFF
THYRISTOR

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _j (°C)	VALUE			UNIT	
				Min	Type	Max		
I _{T(AV)}	Mean on-state current	180° half sine wave 50Hz Double side cooled, T _{HS} =55°C	115			1273	A	
I _{T(AV)}	Mean on-state current	180° half sine wave 50Hz Double side cooled, T _{HS} =80°C	115			848	A	
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V _{DRM} &V _{RRM} tp=10ms V _{DSM} &V _{RSM} = V _{DRM} &V _{RRM} +100V respectively	115	800		1800	V	
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	115			120	mA	
I _{TSM}	Surge on-state current	10ms half sine wave	115			16	KA	
I ² T	I ² T for fusing coordination	V _R =0.6V _{RRM}				1280	A ² s*10 ⁻³	
V _{TO}	Threshold voltage		115			1.48	V	
r _T	On-state slop resistance					0.28	mΩ	
V _{TM}	Peak on-state voltage	I _{TM} =3000A, F=28KN	115			2.32	V	
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =0.67V _{DRM}	115			500	V/μs	
di/dt	Critical rate of rise of on-state e current	From 67%V _{DRM} to 1500A, Gate source 1.5A t _r ≤0.5μs Repetitive	115			600	A/μs	
I _{rm}	Reverse recovery current	I _{TM} =1000A, tp=1000μs, di/dt=-40A/μs, V _R =50V	115			107	A	
t _{rr}	Reverse recovery time					6.5	μs	
Q _{rr}	Recovery charge					349	400	μC
t _q	Circuit commutated turn-off time	I _{TM} =1000A, tp=1000μs, V _R =50V dv/dt=30V/μs ,di/dt=-40A/μs	115	15		35		
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25			40	300	mA
V _{GT}	Gate trigger voltage					0.9	3.5	V
I _H	Holding current					20	500	mA
V _{GD}	Non-trigger gate voltage	At 67%V _{DRM}	115			0.3	V	
R _{th(j-h)}	Thermal resistance Junction to heatsink	At 180° sine double side cooled Clamping force 28KN				0.020	°C /W	
F _m	Mounting force			21		30	KN	
T _{stg}	Stored temperature			-40		140	°C	
W _t	Weight					650	g	
Outline	KT54cT60							

Outline

