

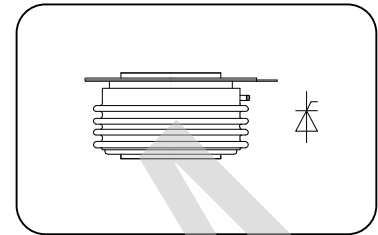
Features:

- n Interdigitated amplifying gates
- n Fast turn-on and high di/dt
- n Low switching losses

Typical Applications

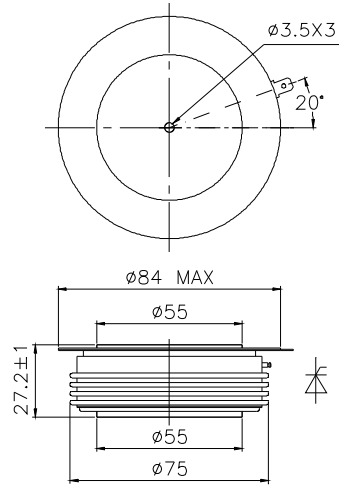
- n Inductive heating
- n Electronic welders
- n Self-commutated inverters

$I_{T(AV)}$	1456A
V_{DRM}/V_{RRM}	800~1800V
t_q	16~35μs
I_{TSM}	16KA
I^2t	1280 10³A²S



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	125			1456	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM} & V_{RRM} , t _p =10ms V_{DSM} & V_{RSM} = V_{DRM} & V_{RRM} +100V	125	800		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	V_D = V_{DRM} V_R = V_{RRM}	125			120	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			16	KA
I^2t	I ² T for fusing coordination	V_R =0.6V _{RRM}	125			1280	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.40	V
r_T	On-state slop resistance		125			0.28	mW
V_{TM}	Peak on-state voltage	I _{TM} =3000A, F=28KN	125			2.24	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM} =0.67V _{DRM}	125			500	V/ μ s
di/dt	Critical rate of rise of on-state current	V_{DM} = 67%V _{DRM} to 3000A, Gate pulse t _r ≤0.5 μ s I _{GM} =1.5A Repetitive	125			500	A/ μ s
I_{rm}	Reverse recovery current	I _{TM} =1500A, t _p =1000 μ s,	125			107	A
t _{rr}	Reverse recovery time	di/dt=-20A/ μ s, V _R =50V				6.5	μ s
Q _{rr}	Recovery charge					349	μ C
t _q	Circuit commutated turn-off time	I _{TM} =1500A, t _p =1000 μ s, V _R =50V dv/dt=30V/ μ s , di/dt=-20A/ μ s	125	16		35	μ s
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	V_{DM} =67%V _{DRM}	125	0.3			V
R _{th(j-h)}	Thermal resistance Junction to heat sink	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:



TECHSEM