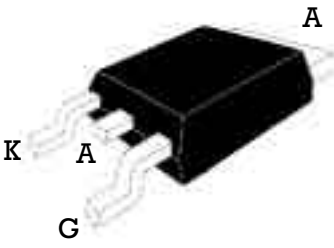


SURFACE MOUNT SCR

DPAK (Plastic) 	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">On-State Current 8 Amp</td><td style="text-align: center;">Gate Trigger Current < 200 μA</td></tr> <tr> <td colspan="2" style="text-align: center;">Off-State Voltage 200 V ÷ 600 V</td></tr> </table> These series of Silicon Controlled Rectifier use a high performance PNP technology. These parts are intended for general purpose applications where high gate sensitivity is required using surface mount technology.	On-State Current 8 Amp	Gate Trigger Current < 200 μ A	Off-State Voltage 200 V ÷ 600 V	
On-State Current 8 Amp	Gate Trigger Current < 200 μ A				
Off-State Voltage 200 V ÷ 600 V					

Absolute Maximum Ratings, according to IEC publication No. 134

SYMBOL	PARAMETER	CONDITIONS	Min.	Max.	Unit
$I_{T(RMS)}$	On-state Current	180° Conduction Angle, $T_c = 110^\circ\text{C}$		8	A
$I_{T(AV)}$	Average On-state Current	Half Cycle, $Q = 180^\circ$, $T_c = 110^\circ\text{C}$		5	A
I_{TSM}	Non-repetitive On-State Current	Half Cycle, 60 Hz		73	A
I_{TSM}	Non-repetitive On-State Current	Half Cycle, 50 Hz		70	A
I^2t	Fusing Current	$t_p = 10\text{ms}$, Half Cycle		24	A ² s
V_{GRM}	Peak Reverse Gate Voltage	$I_{GR} = 10 \mu\text{A}$		8	V
I_{GM}	Peak Gate Current	20 μs max.		4	A
P_{GM}	Peak Gate Dissipation	20 μs max.		5	W
$P_{G(AV)}$	Gate Dissipation	20ms max.		1	W
T_j	Operating Temperature		-40	+125	°C
T_{stg}	Storage Temperature		-40	+150	°C
T_{sld}	Soldering Temperature	10s max.		260	°C

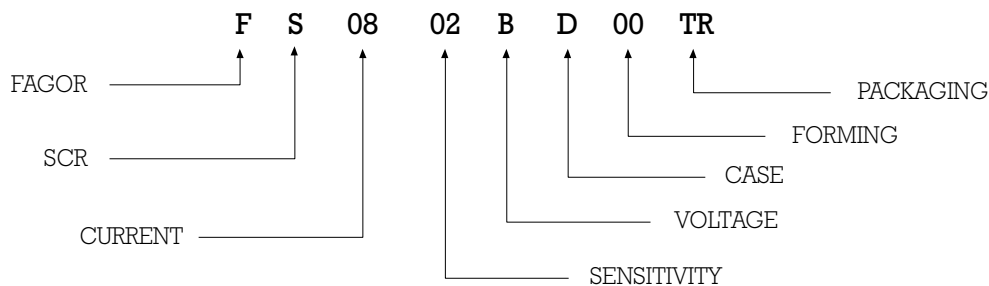
SYMBOL	PARAMETER	CONDITIONS	VOLTAGE			Unit
			B	D	M	
V_{DRM} V_{RRM}	Repetitive Peak Off State Voltage	$R_{CK} = 1 \text{ KW}$	200	400	600	V



SURFACE MOUNT SCR

Electrical Characteristics

SYMBOL	PARAMETER	CONDITIONS		SENSITIVITY		Unit
				02		
I _{GT}	Gate Trigger Current	V _D = 12 V _{DC} , R _L = 140W T _j = 25 °C		MIN MAX	200	μA
I _{DRM} / I _{RRM}	Off-State Leakage Current	V _D = V _{DRM} , R _{GK} = 220W	T _j = 125 °C	MAX	1	mA
		V _R = V _{RRM} ,	T _j = 25 °C	MAX	5	μA
V _{TM}	On-state Voltage	at I _T = 16 Amp, tp = 380 μs, T _j = 25 °C		MAX	1.6	V
V _{GT}	Gate Trigger Voltage	V _D = 12 V _{DC} , R _L = 140W, T _j = 25 °C		MAX	0.8	V
V _{GD}	Gate Non Trigger Voltage	V _D = V _{DRM} , R _L = 3.3KW, R _{GK} = 220W T _j = 125 °C		MIN	0.1	V
I _H	Holding Current	I _T = 50 mA, R _{GK} = 1KW T _j = 25 °C		MAX	5	mA
I _L	Latching Current	I _G = 1 mA, R _{GK} = 1 KW		MAX	6	mA
dv / dt	Critical Rate of Voltage Rise	V _D = 0.67 x V _{DRM} , R _{GK} = 220W, T _j = 125 °C		MIN	5	V/μs
di / dt	Critical Rate of Current Rise	I _G = 2 x I _{GT} Tr £ 100 ns, F = 60 Hz, T _j = 125 °C		MIN	50	A/μs
R _{th(j-c)}	Thermal Resistance Junction-Case for DC				20	°C/W
R _{th(j-a)}	Thermal Resistance Junction-Amb for DC				70	°C/W
V _{i0}	Threshold Voltage	T _j = 125 °C		MAX	0.85	V
R _d	Dynamic resistance	T _j = 125 °C		MAX	46	mW



SURFACE MOUNT SCR

Fig. 1: Maximum average power dissipation versus average on-state current.

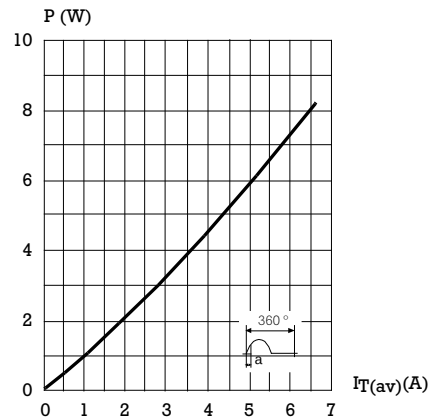


Fig. 3: Relative variation of thermal impedance junction to case versus pulse duration.

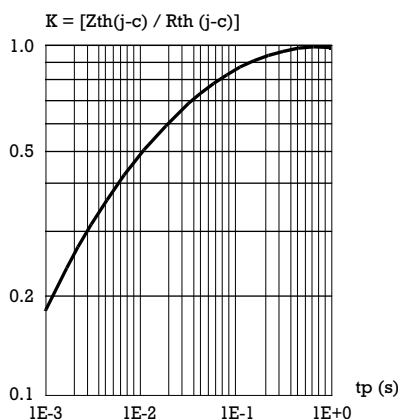


Fig. 5: Non repetitive surge peak on-state current versus number of cycles.

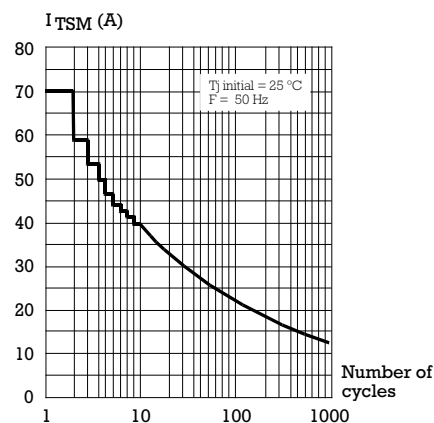


Fig. 2: Average and D.C. on-state current versus case temperature.

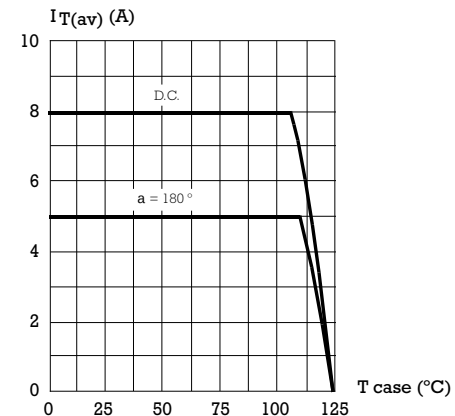


Fig. 4: Relative variation of gate trigger current, holding and latching current versus junction temperature.

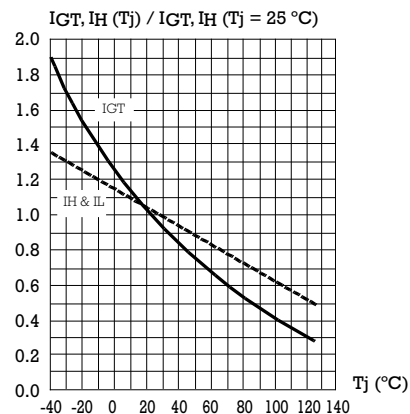
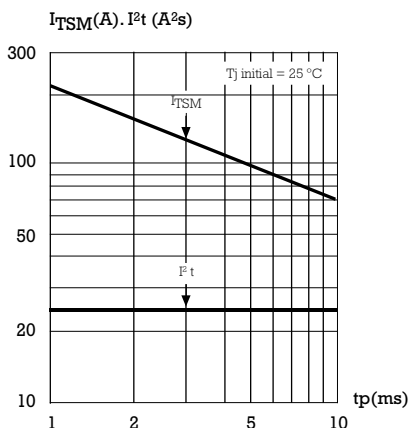


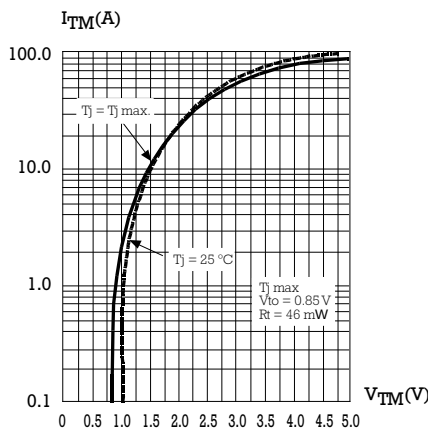
Fig. 6: Non repetitive surge peak on-state current for a sinusoidal pulse with width: $t_p < 10 \text{ ms}$, and corresponding value of I^2t .



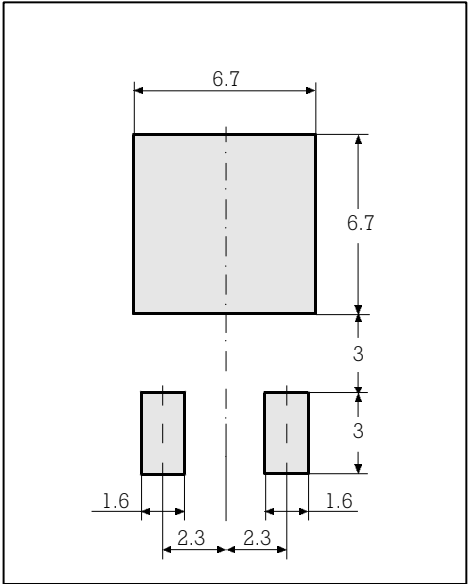


SURFACE MOUNT SCR

Fig. 8: On-state characteristics (maximum values).



FOOT PRINT



PACKAGE MECHANICAL DATA DPAK TO 252-AA

REF.	DIMENSIONS		
	Milimeters		
	Min.	Nominal	Max.
A	2.18	2.3±0.18	2.39
A1	0	0.12	0.127
b	0.64	0.75±0.1	0.89
c	0.46		0.61
c1	0.46		0.56
c2		0.8±0.013	
D	5.97	6.1±0.1	6.22
D1	5.21		5.52
E	6.35	6.58±0.14	6.73
E1	5.20	5.36±0.1	5.46
e		2.28BSC	
H	9.40	9.90±0.15	10.41
L	1.40		1.78
L1	2.55	2.6±0.05	2.74
L2	0.46	0.5±0.013	0.58
L3	0.89	1.20±0.05	1.27
L4	0.64	0.83±0.1	1.02

Marking: type number
Weight: 0.2 g