

$V_{RRM} = 11.8 \text{ kV}$
 $V_{DRM} = 11.8 \text{ kV}$
 $I_{PULSE} = 60 \text{ kA}$
 $V_{Dcmax} = 10 \text{ kV}$

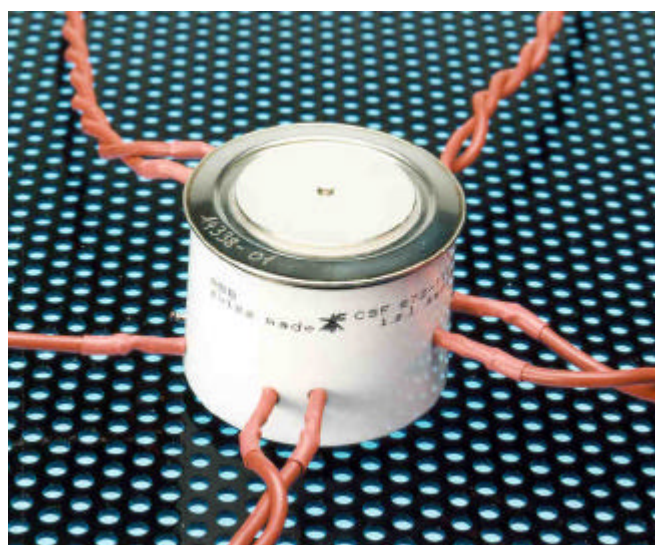
High Voltage High Current Thyristor Switch for Pulsed Power Applications

5STF 07Z1201

Doc. No. 5SYA 01PP-01 Oct. 01

Features

- Multichip Design with 4 Wafers in Series
- For Single Pulse Applications
- Voltage Sharing possibility
- Free Floating Silicon Technology
- Glazed Ceramic Presspack Housing
- Compact Design
- High Reliability



V_{RRM}	Repetitive reverse blocking	11.8 kV	Tvj = 0 ... 125°C At Tj ≤ 50 °C. Ambient cosmic radiation at sea level in open air.
V_{DC}	Permanent DC voltage for 100 FIT failure rate	8 kV	
V_{DC}	Max. DC voltage	10 kV	For ≤ 60 sec at Tj ≤ 50°C
I_{PULSE}	Max. Pulse Current	60 kA	Half sine wave, Tj ≤ 50°C, tp ≤ 500 μs
dt/dt	Max. current rate of rise	600 A/μs	Ig = 2 mA / dig/dt = 1,5 A/μs
I ² t	Limiting load integral	0.9 x10 ⁶ A ² s	Tp = 500 μs, Tj = 50 °C
V_T	Forward voltage drop	1,81 V	Per Wafer level If = 3000 A, Tj = 50 °C
V_{T0}	Threshold voltage	1.00 V	Per Wafer level at Tj = 50 °C
r_T	Slope resistance	0.27 mΩ	Per Wafer level at Tj = 50 °C
t_d	Turn-on delay time	≤ 2,0 μs	Vd = 0,4 Vdrm, Ig = 2,0 A

This device will be discontinued and replaced by P/N 5STF 07Z1350 from 08.2001

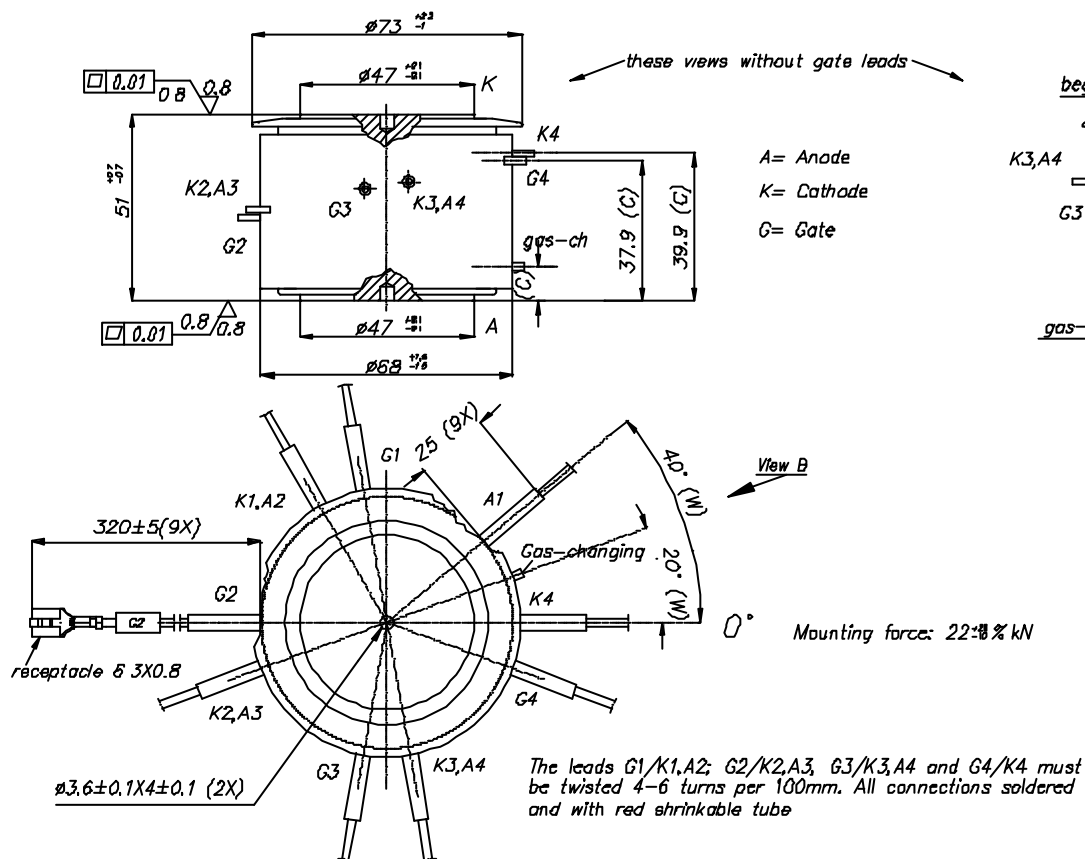
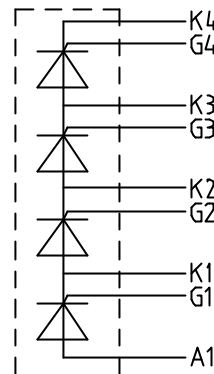
A special HV Gate Drive Unit, including sharing resistors is available. See Datasheet P/N RAM 94-03 or P/N 5SPY 94-04



Pulse Power Device 5STF 07Z1201

Mechanical data

F_M	Mounting force	min.	17 kN
		max.	24 kN
D_p	Pole-piece diameter		47 mm
H	Housing thickness		50 mm
M	Weight		1,0 kg
D_s	Surface creepage distance		42 mm
D_a	Air strike distance		29 mm



Connection	$W \pm 2^\circ$	$C \pm 0.8 \text{ mm}$
K4	0	39.9
Gas-changing	20	9.3
A1	40	9.3
G1	100	15
K1,A2	120	17
G2	180	22.6
K2,A3	200	24.6
G3	260	30.3
K3,A4	280	32.3
G4	340	37.9



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Doc. No. 5SYA 01PP-01 Oct. 01

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