

January 9, 1998

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HIGH DENSITY, HIGH VOLTAGE, STANDARD RECOVERY RECTIFIER ASSEMBLY

QUICK REFERENCE DATA

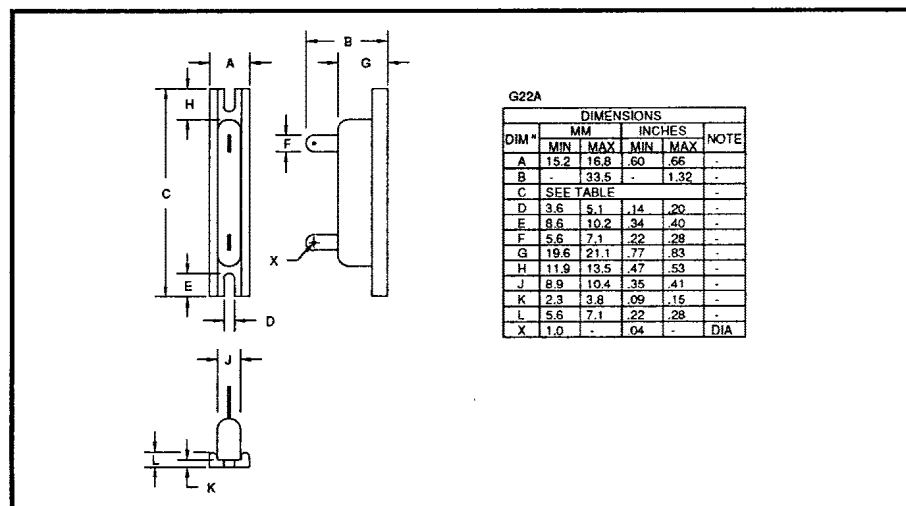
- Low reverse leakage current
- Low distributed and ground capacitance
- Corona free design
- Easy aluminium base mount
- Low forward voltage drop

- $V_R = 5kV - 15kV$
- $I_F = 1A$
- $t_{rr} = 2.0\mu S$
- $I_R = 1.0\mu A$

ABSOLUTE MAXIMUM RATINGS

	Symbol	SDH5KM	SDH10KM	SDH15KM	Unit
Working reverse voltage	V_{RWM}	5.0	10.0	15.0	kV
Surge reverse voltage	V_{RSM}	5.5	11.0	16.5	kV
Average forward current in air @ 25°C in oil @ 55°C	$I_{F(AV)}$	← 1.0 →	← 1.0 →	← 1.0 →	A
Non-repetitive surge current $t_p = 8.3mS, @ 25°C$	I_{FSM}	← 50 →	← 50 →	← 50 →	A
Storage temperature range	T_{STG}	← -55 to +150 →	← -55 to +150 →	← -55 to +150 →	°C
Operating temperature range	T_{OP}	← -55 to +150 →	← -55 to +150 →	← -55 to +150 →	°C
Body length ±0.030"	dim C	3.36	4.04	4.04	inches

MECHANICAL

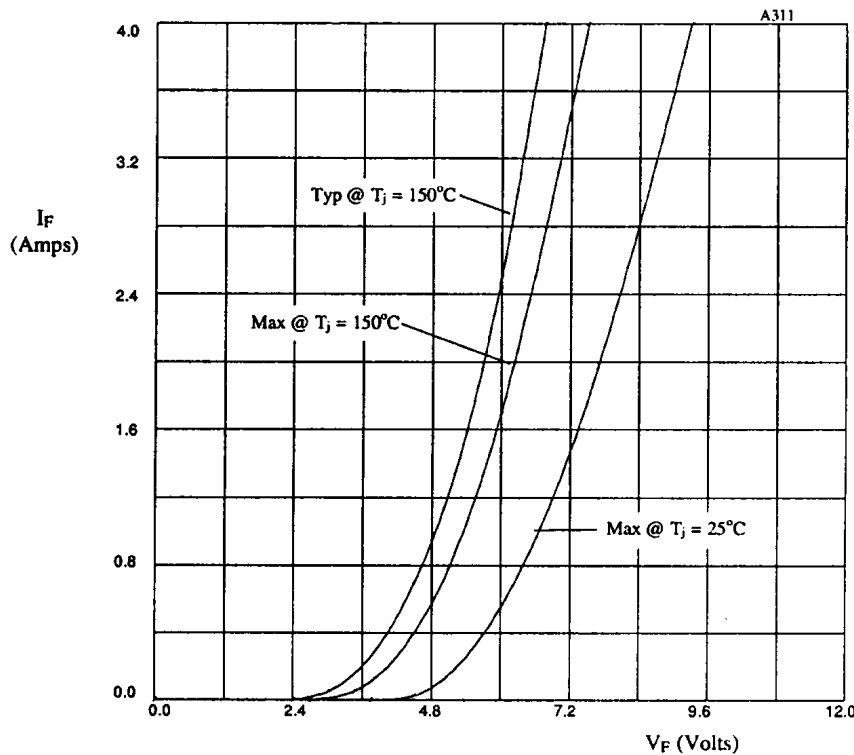


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ELECTRICAL CHARACTERISTICS

	Symbol	SDH5KM	SDH10KM	SDH15KM	Unit
Max. forward voltage drop @ $I_F = 1.0A$, $T_j = 25^\circ C$	V_F	6.6	13.2	19.8	V
Max. reverse leakage current @ V_{RWM} , $T_j = 25^\circ C$	I_R	←—————→	1.0	—————→	μA
@ V_{RWM} , $T_j = 100^\circ C$	I_R	←—————→	25	—————→	μA
Max. reverse recovery time ¹ 0.5A I_F to 1.0A I_R . Recovers to 0.25A I_{RR} .	t_{rr}	←—————→	2.0	—————→	μS
Max. fusing current $t_p = 8.3mS$	I^2t	←—————→	10	—————→	A^2S

¹ Measured on discrete devices prior to assembly



Multiplication tables for fig 1.

SDH5KM X-axis x1
SDH10KM X-axis x2
SDH15KM X-axis x3

Fig 1. Forward voltage drop as a function of forward current for use with multiplication table 1.