

January 9, 1998

TEL:805-498-2111 FAX:805-498-3804 WEB:<http://www.semtech.com>

HIGH DENSITY, HIGH VOLTAGE, STANDARD RECOVERY DOUBLER AND CENTER TAPS

- Low reverse leakage currents
- Corona free design
- Easy aluminum base mount
- Low forward voltage drop
- Up to 10kV reverse voltage

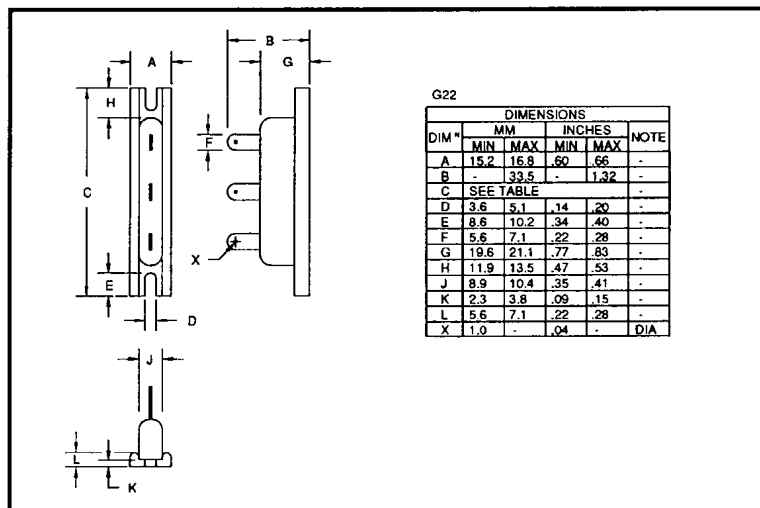
QUICK REFERENCE DATA

- $V_R = 5kV \text{ \& } 10kV$
- $I_F = 5.0A$
- $t_{rr} = 2.0\mu S$
- $I_R = 1.0\mu A$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current		1 Cycle Surge Current $t_p = 8.3mS$ @ 25°C	Operating and storage temp. ranges. $T_{OP} \text{ \& } T_{STG}$	Case Length
		air 25 °C	oil 55 °C			dim C
	Volts	Amps	Amps	Amps	°C	inches
SDHD5KS	5000	2.5	2.5	150	-55 to +150	4.72
SDHD10KS	10000	2.5	2.5	150		6.09
SDHN5KS	5000	5.0	5.0	150	-55 to +150	4.72
SDHN10KS	10000	5.0	5.0	150		6.09
SDHP5KS	5000	5.0	5.0	150	-55 to +150	4.72
SDHP10KS	10000	5.0	5.0	150		6.09

MECHANICAL



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CHARACTERISTICS (ratings apply per leg)

Device Type	Reverse Current @ V_{RWM}		Maximum Forward Voltage V_F @ 3.0A @ 25°C	Maximum Reverse Recovery Time ¹ @ 25°C
	@ 25°C	@ 100 °C		
	μA	μA	Volts	μS
SDHD5KS	1.0	25	6.0	$\updownarrow$ 2.0
SDHD10KS	1.0	25	12.0	
SDHN5KS	1.0	25	6.0	
SDHN10KS	1.0	25	12.0	
SDHP5KS	1.0	25	6.0	
SDHP10KS	1.0	25	12.0	

¹ Measured on discrete devices prior to assembly

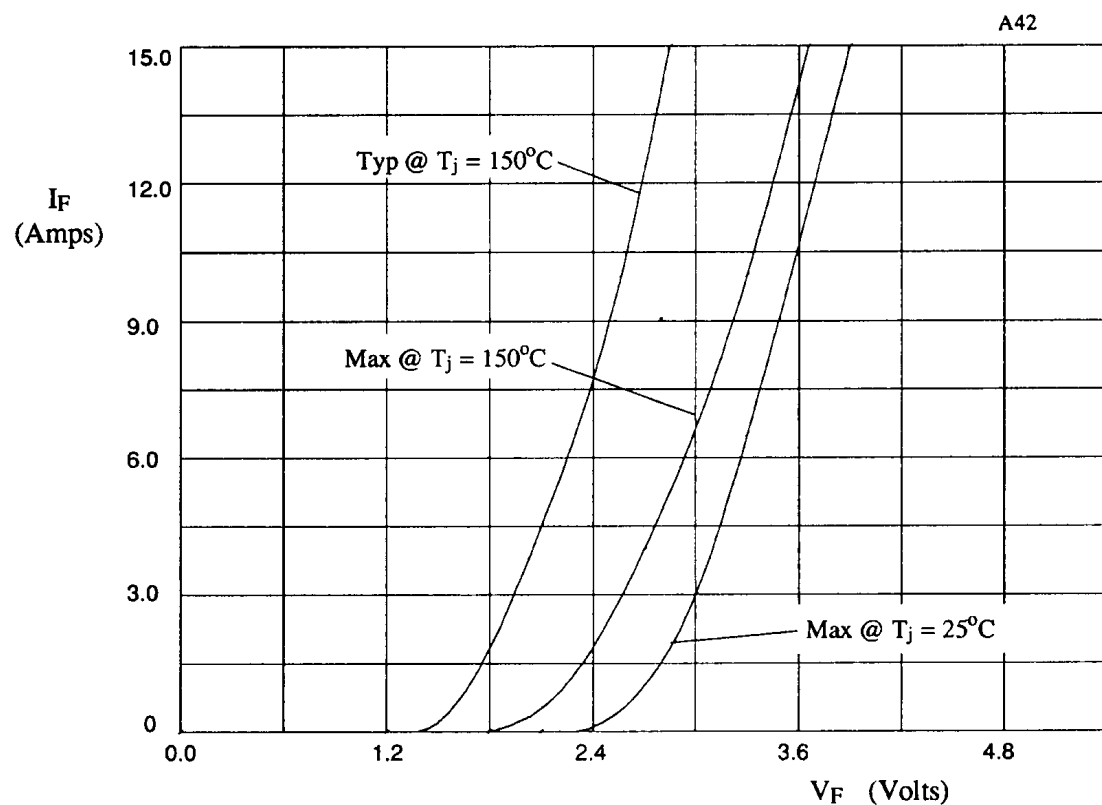


Figure 1. Forward voltage drop per leg as a function of forward current for SDH*5KS.
For SDH*10KS multiply X-axis by 2.