

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**

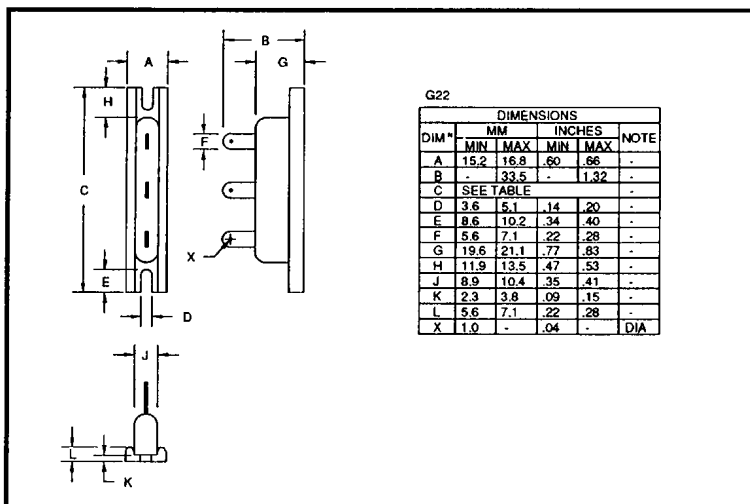
- Low reverse leakage currents
- Corona free design
- Easy aluminum base mount
- Low forward voltage drop
- Up to 15kV reverse voltage

**QUICK REFERENCE
DATA**

- $V_R = 7.5\text{kV} \text{ \& } 15\text{kV}$
- $I_F = 800\text{mA}$
- $t_{rr} = 2.0\mu\text{s}$
- $I_R = 1.0\mu\text{A}$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current		1 Cycle Surge Current $t_p = 8.3\text{ms}$ @ 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
SDHD7.5K	7500	0.4	0.4	16	-55 to + 150	4.72
SDHD15K	15000	0.4	0.4	16		6.09
SDHN7.5K	7500	0.8	0.8	8	-55 to + 150	4.72
SDHN15K	15000	0.8	0.8	8		6.09
SDHP7.5K	7500	0.8	0.8	8	-55 to + 150	4.72
SDHP15K	15000	0.8	0.8	8		6.09

MECHANICAL

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CHARACTERISTICS (ratings apply per leg)

Device Type	Reverse Current @ V_{RWM}		Maximum Forward Voltage V_F @ 0.2A @ 25°C	Maximum Reverse Recovery Time ¹ @ 25°C
	@ 25 °C	@ 100 °C		
	μA	μA	Volts	μS
SDHD7.5K	1.0	20	10.0	↑ 2.0 ↓
SDHD15K	1.0	20	20.0	
SDHN7.5K	1.0	20	10.0	
SDHN15K	1.0	20	20.0	
SDHP7.5K	1.0	20	10.0	
SDHP15K	1.0	20	20.0	

¹ Measured on discrete devices prior to assembly

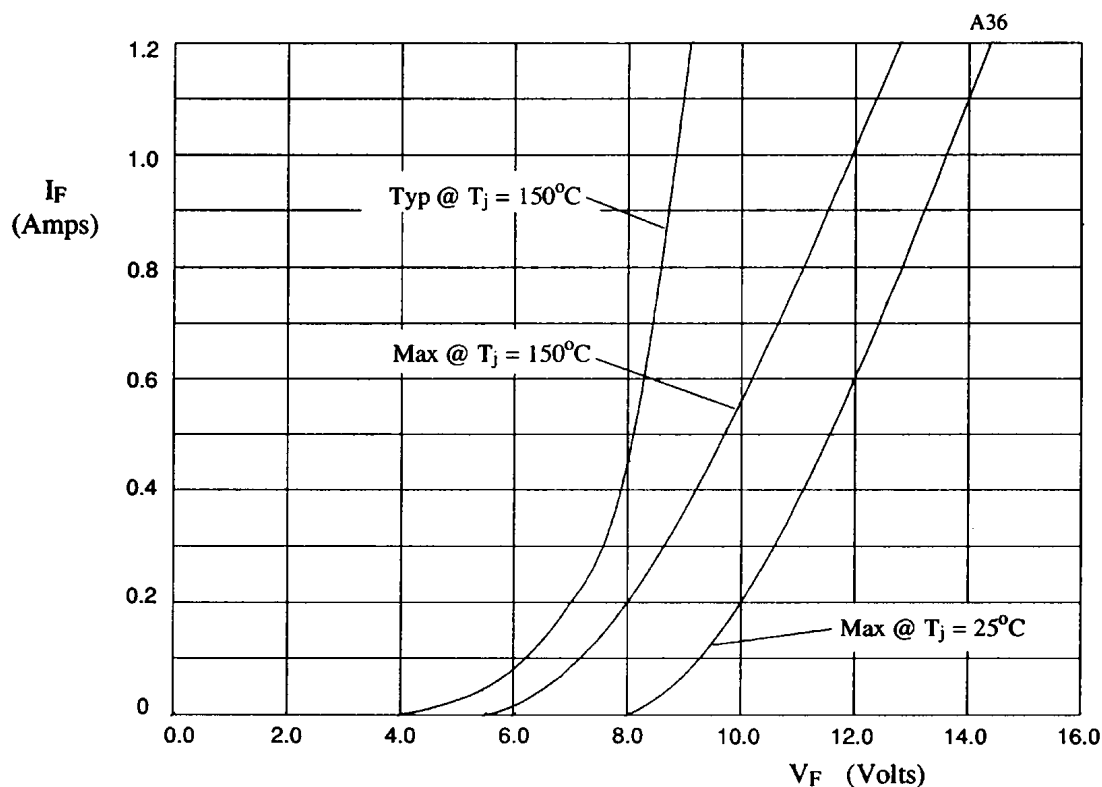


Figure 1. Maximum and typical forward voltage drop per leg as a function of forward current ($T_j = 25^\circ\text{C}$ & 150°C) for SDH*7.5K.
For SDH*15K multiply X-axis by 2.