

January 8, 1998

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### HIGH VOLTAGE, HIGH DENSITY, FAST RECOVERY MODULAR RECTIFIER ASSEMBLY

### QUICK REFERENCE DATA

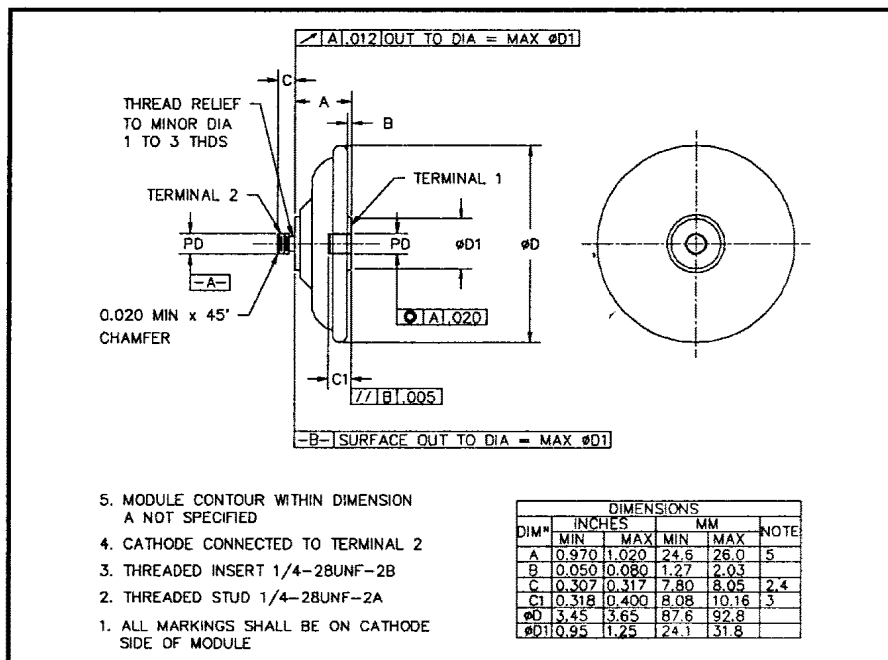
- Low reverse recovery time
- Low reverse leakage current
- High thermal shock resistance
- Modular construction
- Low distributed capacitance

- $V_R = 5000 - 10000V$
- $I_F = \text{to } 4.0A$
- $I_{FSM} = 80A$
- $t_{rr} = 300nS$

### ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage $V_{RWM}$	Rectified Current $I_{F(AV)}$			1 Cycle Surge Current $I_{FSM}$ $t_p = 8.3mS$ @ $T_{jMAX}$	$I^2t$ $t_p = 8.3mS$
		air 25 °C	air 100 °C	in still oil @ 55 °C		
		Volts	Amps	Amps		
SHVS5F	5000	2.75	1.6	4.0	80	24
SHVS7.5F	7500	2.0	1.2	3.2	80	24
SHVM10F	10000	1.9	1.1	2.9	80	24

### MECHANICAL



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### ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current $I_R @ V_{RWM}$		Maximum Reverse Recovery Time $t_{rr} @ 25^\circ\text{C}$	Maximum Forward Voltage $V_F @ 25^\circ\text{C}$ @3A
	@ 25 °C	@ 100 °C		
	$\mu\text{A}$	$\mu\text{A}$	nS	Volts
SHVS5F	1.0	10.0	300	6.5
SHVS7.5F	1.0	10.0	300	10.4
SHVM10F	1.0	10.0	300	13

1. Measured on discrete devices prior to assembly

Operating temperature range     $-55^\circ\text{C}$  to  $+150^\circ\text{C}$   
Storage temperature range        $-55^\circ\text{C}$  to  $+150^\circ\text{C}$

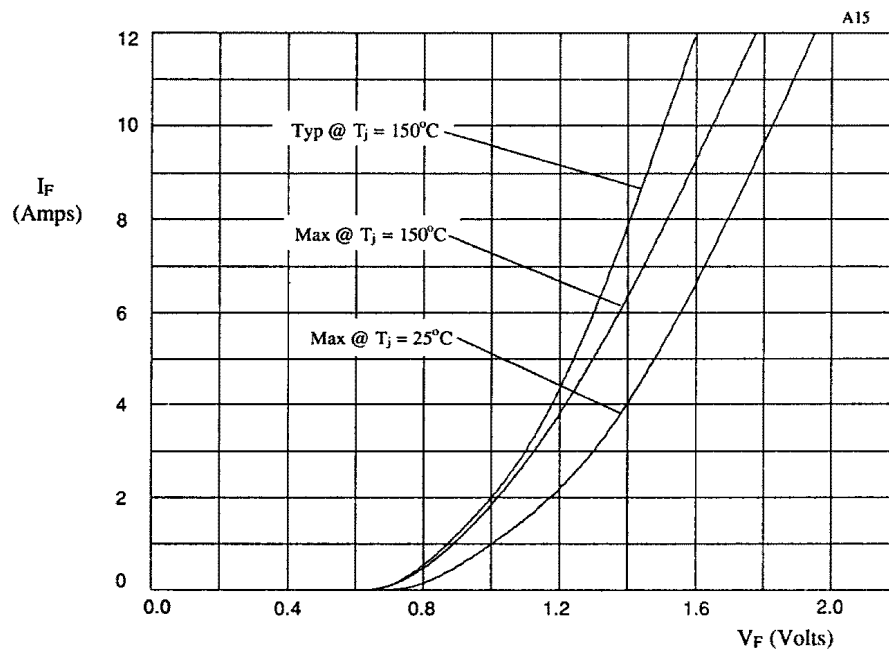


Figure 1. Forward voltage drop as a function of forward current  
(See TABLE 1)

TABLE 1

DEVICE	X-AXIS
SHVS5F	x5
SHVS7.5F	x8
SHVS10F	x10