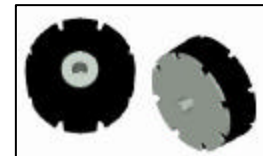


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HIGH VOLTAGE, HIGH DENSITY, FAST RECOVERY MODULAR RECTIFIER ASSEMBLY

FEATURES:

- Up to 15kV reverse voltage
 - Low reverse leakage current
 - High thermal shock resistance
 - Modular construction
 - Provides design versatility
- $V_R = 2500V - 15000V$
 - $I_F = 500mA$ (air)
 - $I_R = 1.0mA$
 - $I_{FSM} = 20A$


Absolute Maximum Ratings

TYPE NUMBER	PEAK INVERSE VOLTAGE (PIV)	MAX. AVG. DC OUTPUT CURRENT (AIR)		STUD TO HEAT-SINK @ 25°C	IN STILL OIL @ 55°C	1 CYCLE SURGE CURRENT I_{FSM} $t_p = 8.3ms$		REPETITIVE SURGE CURRENT I_{FRM} @ 25°C	\dot{I}_t $t_p = 8.3ms$ @ 25°C
		$I_{F(AV)}$				I_{FSM}			
		Amps				Amps			
	Volts	25°C	100°C	Amps	Amps	25°C	100°C	Amps	A ² S
SHVM2.5	2500	0.5	0.2	0.5	0.5	20.0	8.0	8.0	1.67
SHVM5	5000								
SHVM7.5	7500								
SHVM10	10000								
SHVM12.5	12500								
SHVM15	15000								

MAXIMUM THERMAL IMPEDANCES

Junction to Ambient $R_{\theta JC} < 12^\circ C/W$
 Junction to Stud $R_{\theta JS} < 6^\circ C/W$
 Junction to Oil $R_{\theta JO} < 4.5^\circ C/W$

Electrical Characteristics

TYPE NUMBER	MAXIMUM REVERSE CURRENT @ PIV		MAXIMUM PEAK FORWARD VOLTAGE V_F @ I_F		MAXIMUM REVERSE RECOVERY TIME ① t_{rr} @ 25°C
	I_R				
	μAmps		V	A	
	25°C	100°C			μsec
SHVM2.5	1.0	50	7.0	0.8	2.0
SHVM5			14.0		
SHVM7.5			21.0		
SHVM10			28.0		
SHVM12.5			35.0		
SHVM15			42.0		

Notes:

- Operating temperature range -55 to +150°C.
 - Storage temperature range -55 to +150°C.
- (Temperature range is given for Hermetic Diodes)
 ① Measured on discrete devices prior to assembly.

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Mechanical Dimensions in: mm / inches

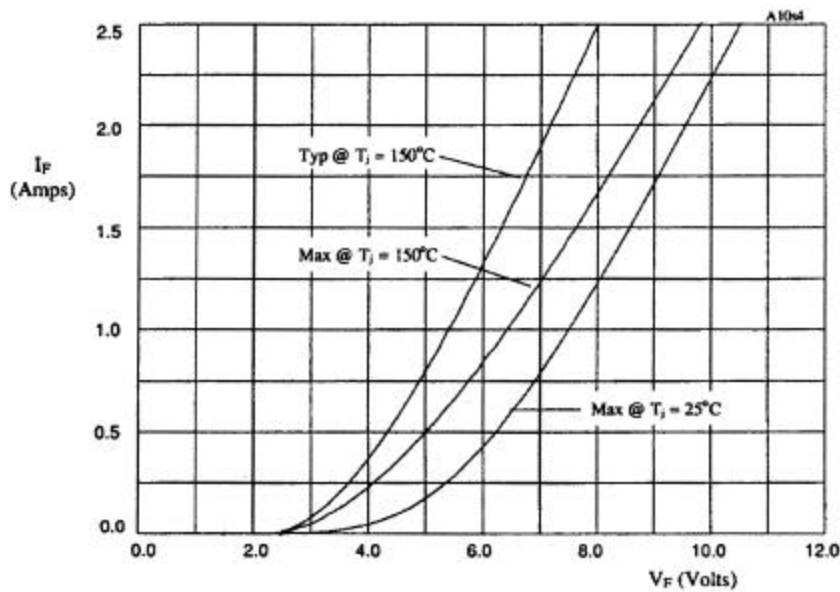
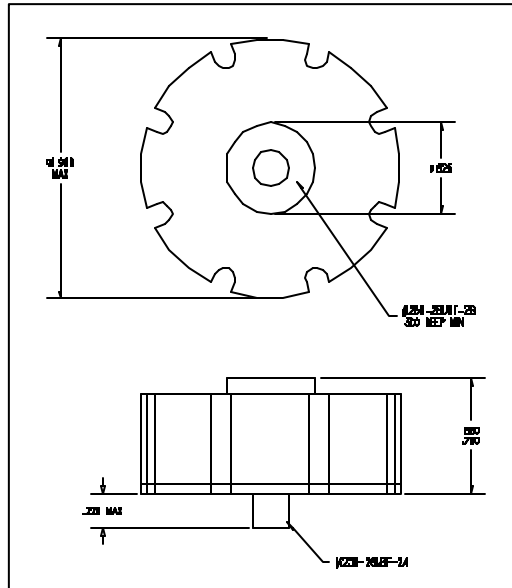


Figure 1. Forward voltage drop as a function of forward current for use with table 1.

TABLE 1

DEVICE	X-axis
SHVM2.5	x1
SHVM5	x2
SHVM7.5	x3
SHVM10	x4
SHVM12.5	x5
SHVM15	x6

SHVM2.5 SHVM10
SHVM5 SHVM12.5
SHVM7.5 SHVM15

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