



180 Lafayette Road
 North Hampton, NH 03862-2448
 PH: 603-964-3165
 FX: 603-964-3168
 WWW.PDEELECTRONICS.COM

Rectifier Assembly

High Voltage Stacks, .125 Amp to 1 Amp
 US12-US200A, USR12-USR180A

FEATURES

- PIV: from 1200 to 20,000V
- Recovery times: to 500ns
- Controlled Avalanche Characteristics
- Void-less Encapsulation
- High Forward and Reverse Surge Capability
- Glass-Passivated diodes used

DESCRIPTION

This series of medium current, high voltage stacks are assembled from hermetically sealed, controlled avalanche diodes. These offer the absolute best in reliability for such applications as clipper diodes and hold-off diodes in pulse modulators.

ABSOLUTE MAXIMUM RATINGS

Peak Inverse Voltage.....	1200 to 20,000V
Maximum Average DC Output Current.....	See Electrical Specifications
Non-Repetitive Sinusoidal Surge (8.3ms).....	20 Amps
Storage and Operating Temperature.....	-65°C to 150°C

ELECTRICAL CHARACTERISTICS (at 25°C unless noted)							MAX RATINGS		
TYPE	PIV	Max Leakage Current at PIV		Max Forward Voltage Drop	Maximum Reverse Recovery Time	Body Size	Max Average DC Output Current		
		T _A =25°C	T _A =100°C				T _A =25°C	T _A =50°C	
		μA	μA				mA (Air)	mA (Oil)	
FAST RECOVERY									
USR12	1200	5	150	3.3V@400mA	500	PA	750	1850	
USR15	1500	5	150	4.0V@400mA	500	PA	600	1500	
USR20	2000	5	150	5.5V@400mA	500	PB	500	1250	
USR25	2500	5	150	6.6V@400mA	500	PB	400	1000	
USR30	3000	5	150	7.7V@400mA	500	PC	400	1000	
USR35	3500	5	150	8.8V@200mA	500	PC	350	850	
USR40A	4000	5	150	9.9V@200mA	500	PD	300	750	
USR45A	4500	5	150	11.0V@100mA	500	PD	250	625	
USR50A	5000	5	150	13.0V@100mA	500	PD	250	625	
USR60A	6000	5	150	15.4V@100mA	500	PD	220	500	
USR70A	7000	5	150	17.6V@100mA	500	PE	220	500	
USR80A	8000	5	150	20.0V@100mA	500	PE	200	400	
USR100A	10000	5	150	24.0V@100mA	500	PE	200	400	
USR120A	12000	5	150	31.0V@100mA	500	PF	150	300	
USR150A	15000	5	150	33.0V@100mA	500	PF	150	300	
USR180A	18000	5	150	35.0V@100mA	500	PF	125	250	

* I_F= 10mA, I_R=10mA, I_{rec}=5mA, measured on discretes prior to assembly



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		T _A =25°C	T _A =100°C				T _A =25°C	T _A =50°C
	V	µA	µA		ns		mA (Air)	mA (Oil)
STANDARD RECOVERY								
US12	1200	2	100	2.0V@400mA		PA	1000	2500
US15	1500	2	100	3.0V@400mA	-	PA	800	2000
US18	1800	2	100	3.0V@400mA		PA	700	1750
US20	2000	2	100	4.0V@400mA		PA	600	1500
US25	2500	2	100	5.0V@400mA	-	PB	600	1500
US30	3000	2	100	6.0V@400mA		PB	500	1250
US35	3500	2	100	7.0V@200mA	-	PC	400	1000
US40	4000	2	100	7.0V@200mA		PC	350	850
US45A	4500	2	100	8.0V@200mA		PD	330	750
US50A	5000	2	100	9.0V@200mA	-	PD	330	750
US60A	6000	2	100	10.0V@200mA		PD	300	620
US70A	7000	2	100	12.0V@200mA		PD	300	620
US80A	8000	2	100	14.0V@100mA		PE	250	500
US100A	10000	2	100	17.0V@100mA	-	PE	250	500
US120A	12000	2	100	21.0V@100mA		PE	200	400
US150A	15000	2	100	26.0V@100mA		PF	200	400
US180A	18000	2	100	31.0V@100mA	-	PF	180	360
US200A	20000	2	100	34.0V@100mA		PF	180	360

* I_F= 10mA, I_R=10mA, I_{rec}=5mA, measured on discretes prior to assembly

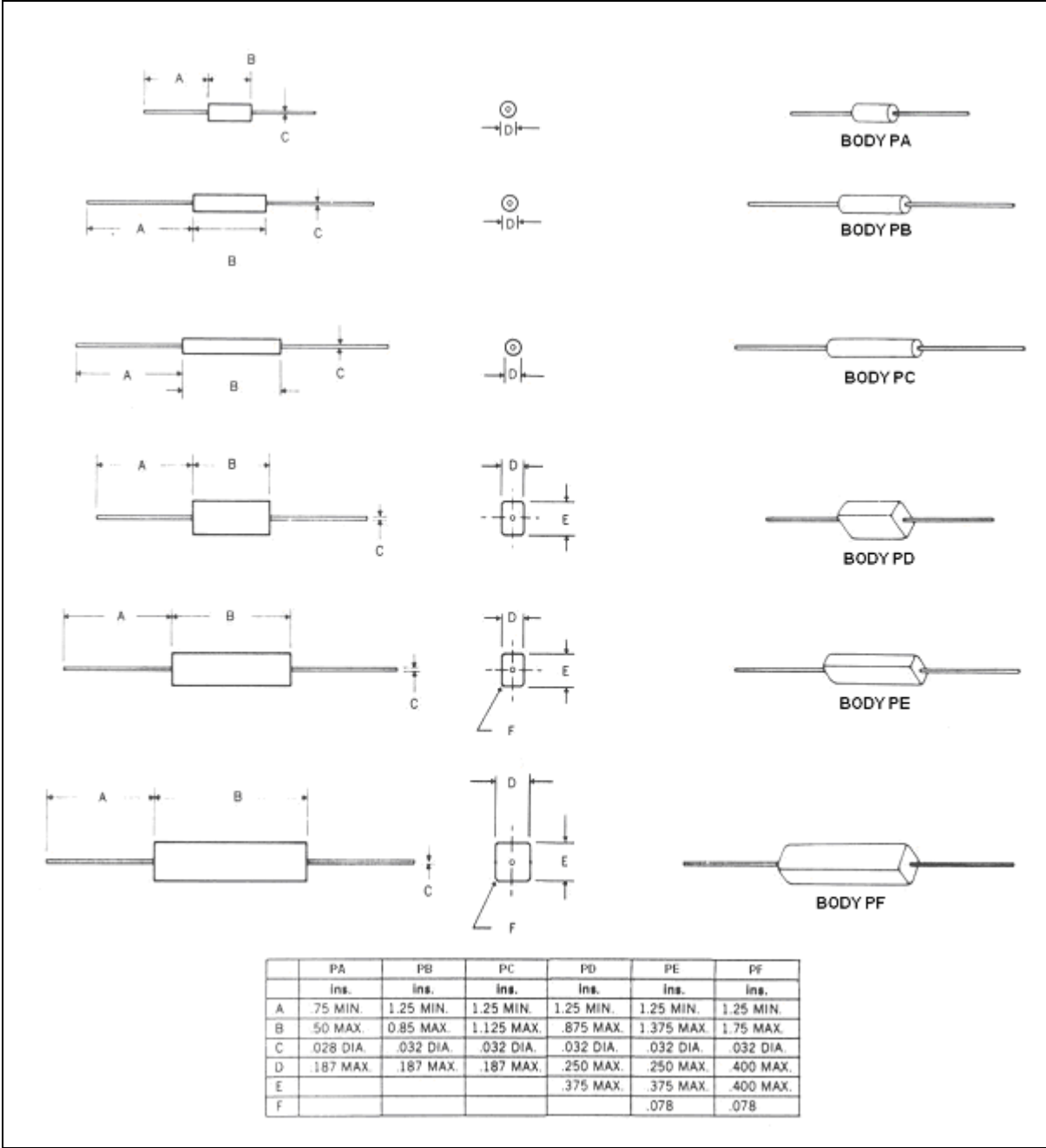


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MECHANICAL CHARACTERISTICS



Specifications subject to change without notice to ensure a better product
PD&E Electronics 180 Lafayette Rd. North Hampton, NH 03862
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