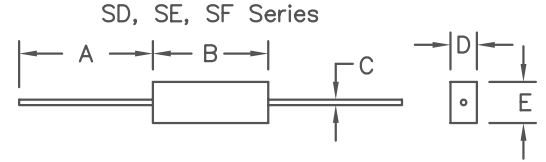
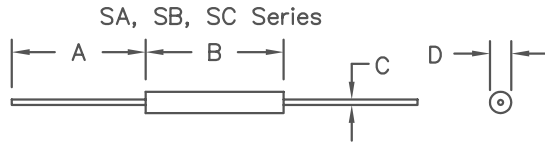


# High Voltage Stacks .125 Amp to 1 Amp Standard and Fast Recovery US12–US200A and USR12–USR180A



	SA	SB	SC	SD	SE	SF
	Inches Millimeters	Inches Millimeters	Inches Millimeters	Inches Millimeters	Inches Millimeters	Inches Millimeters
A	.75 min. 19.05 min.	1.25 min. 31.75 min.	1.25 min. 31.75 min.	1.25 min. 31.75 min.	1.25 min. 31.75 min.	1.25 min. 31.75 min.
B	.50 min. 12.70 min.	.85 max. 21.59 min.	1.125 max. 28.58 min.	.875 max. 22.23 max.	1.375 max. 34.93 max.	1.75 max. 44.45 max.
C	.028 dia. .032 dia.	.032 dia. .81 dia.	.032 dia. .81 dia.	.032 dia. .81 dia.	.032 dia. .81 dia.	.032 dia. .81 dia.
D	.187 max. 4.75 max.	.187 max. 4.75 max.	.187 max. 4.75 max.	.250 max. 6.35 max.	.250 max. 6.35 max.	.400 max. 10.16 max.
E				.375 max. 9.53 max.	.375 max. 9.53 max.	.400 max. 10.16 max.

Microsemi Catalog Number	Working Peak Reverse Voltage VRRM
US series	1.2kV to 20kV
USR series	1.2kV to 18kV

- Current ratings to 1.0A
- VRRM to 1.2kV to 20kV
- Only fused-in-glass diodes used
- 150°C junction temperature
- Surge ratings to 20A
- Recovery time to 500nS
- MIL-PRF-19500 Similarity
- Sn/Pb terminations

Electrical Characteristics (at 25°C unless noted)							Maximum Ratings		
	VRRM	Maximum Leakage Current		Maximum Forward Voltage Drop	Maximum Reverse Recovery Time	Body Size	Maximum Average D.C. Output Current		
		TA = 25°C	TA = 100°C				TA = 25°C Air	TA = 50°C Oil	
	V	uA	uA		nS		mA	mA	
Standard Recovery	US12	1200	2	100	2.0V @ 400mA		SA	1000	2500
	US15	1500	2	100	3.0V @ 400mA	—	SA	800	2000
	US18	1800	2	100	3.0V @ 400mA		SA	700	1700
	US20	2000	2	100	4.0V @ 400mA		SA	600	1500
	US25	2500	2	100	5.0V @ 400mA	—	SB	600	1500
	US30	3000	2	100	6.0V @ 400mA		SB	500	1250
	US35	3500	2	100	7.0V @ 200mA	—	SC	400	1000
	US40	4000	2	100	7.0V @ 200mA		SC	350	850
	US45A	4500	2	100	8.0V @ 200mA		SD	330	750
	US50A	5000	2	100	9.0V @ 200mA	—	SD	330	750
	US60A	6000	2	100	10.0V @ 200mA		SD	300	620
	US70A	7000	2	100	12.0V @ 200mA		SD	300	620
	US80A	8000	2	100	14.0V @ 100mA		SE	250	500
	US100A	10000	2	100	17.0V @ 100mA	—	SE	250	500
	US120A	12000	2	100	21.0V @ 100mA		SE	200	400
	US150A	15000	2	100	26.0V @ 100mA		SF	200	400
US180A	18000	2	100	31.0V @ 100mA	—	SF	180	360	
US200A	20000	2	100	34.0V @ 100mA		SF	180	360	
Fast Recovery	USR12	1200	5	150	3.3V @ 400mA	500	SA	750	1850
	USR15	1500	5	150	4.0V @ 400mA	500	SA	600	1500
	USR20	2000	5	150	5.5V @ 400mA	500	SB	500	1250
	USR25	2500	5	150	6.6V @ 400mA	500	SB	400	1000
	USR30	3000	5	150	7.7V @ 400mA	500	SC	400	1000
	USR35	3500	5	150	8.8V @ 400mA	500	SC	350	850
	USR40A	4000	5	150	9.9V @ 200mA	500	SD	300	750
	USR45A	4500	5	150	11.0V @ 200mA	500	SD	250	625
	USR50A	5000	5	150	13.0V @ 200mA	500	SD	250	625
	USR60A	6000	5	150	15.4V @ 200mA	500	SD	220	500
	USR70A	7000	5	150	17.6V @ 100mA	500	SE	220	500
	USR80A	8000	5	150	20.0V @ 100mA	500	SE	200	400
	USR100A	10000	5	150	24.0V @ 100mA	500	SE	200	400
	USR120A	12000	5	150	31.0V @ 100mA	500	SF	150	300
USR150A	15000	5	150	33.0V @ 100mA	500	SF	150	300	
USR180A	18000	5	150	35.0V @ 100mA	500	SF	125	250	

\* Measured in reverse recovery circuit switching from 10mA forward to 10mA current recovering to 5mA.

# US12-US200A & USR12-USR180A

Figure 1  
Typical Forward Characteristics  
US Series

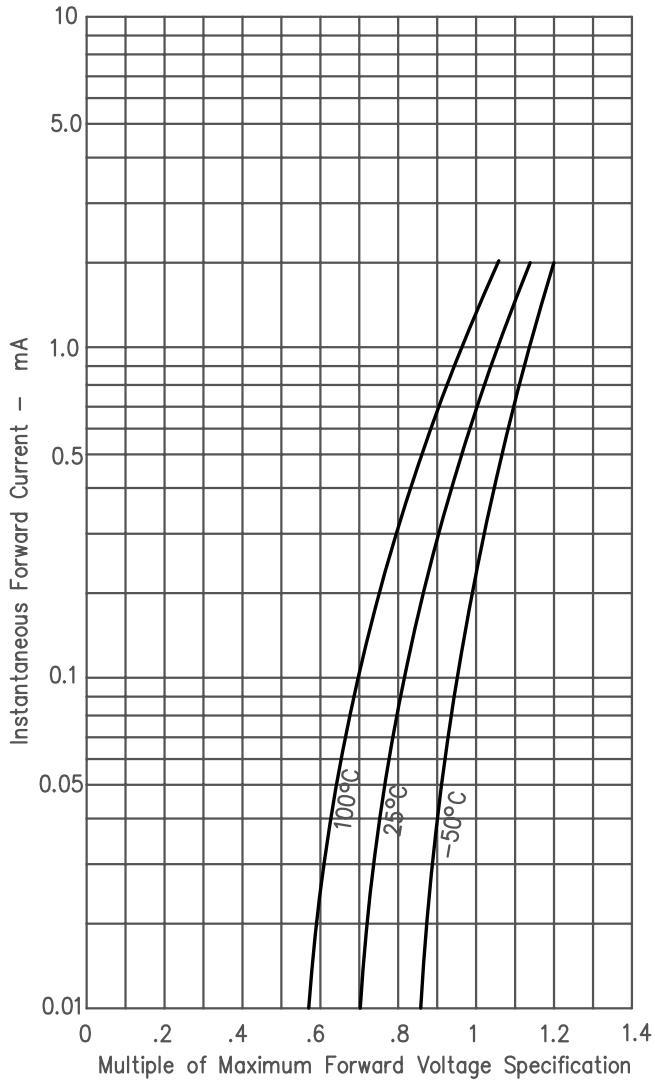


Figure 2  
Typical Forward Characteristics  
USR Series

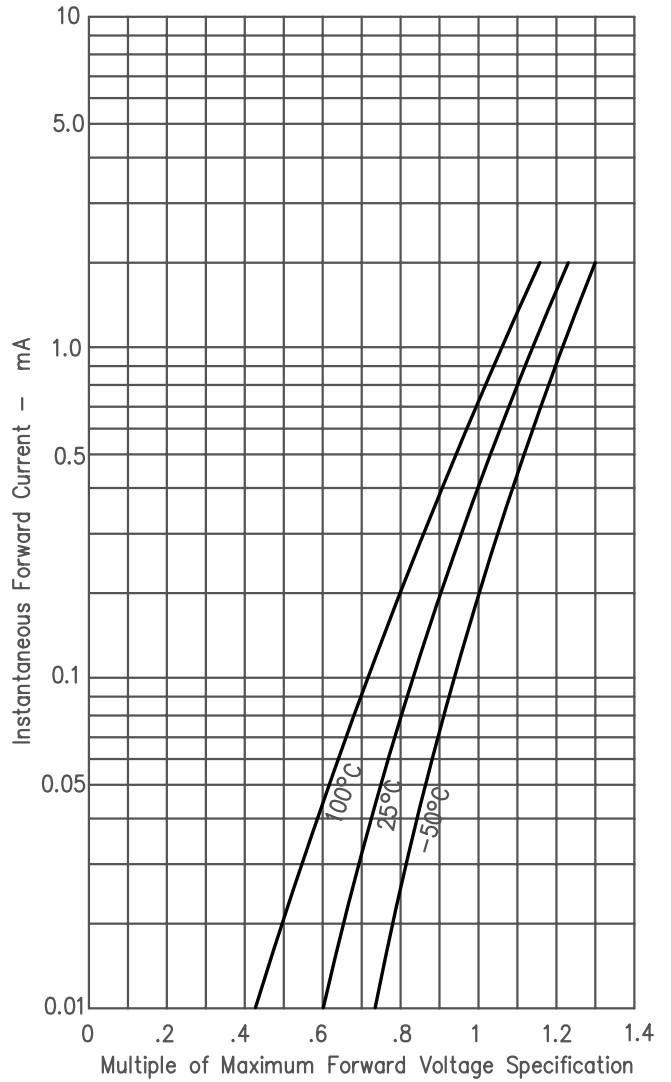


Figure 3  
Typical Reverse Leakage Current  
US & USR Series

