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SRA251 THRU SRA257

Features

- Low Cost
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- For Automotive Applications

Maximum Ratings

- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C

Microsemi Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SRA251	50V	35V	50V
SRA252	100V	70V	100V
SRA253	200V	40V	200V
SRA254	400V	280V	400V
SRA255	600V	420V	600V
SRA256	800V	560V	800V
SRA257	1000V	700V	1000V

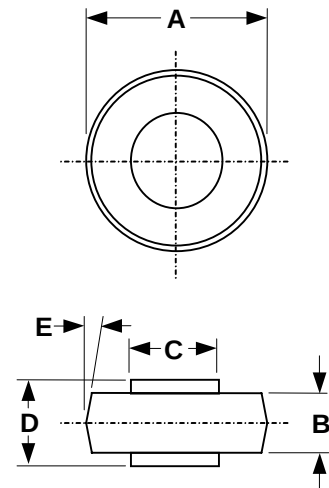
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	25 A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	400A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 25\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 μA 150 μA	$T_A = 25^\circ\text{C}$ $T_A = 55^\circ\text{C}$
Maximum Reverse Recovery Time	T_{rr}	2 μs	$I_F=0.5\text{A}, I_R=25\text{A},$ $I_{rr}=0.25\text{A}$
Typical Junction Capacitance	C_J	65pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

*Pulse Test: Pulse Width 300 μsec , Duty Cycle 1%

25 Amp Standard Recovery Rectifier 50 to 1000 Volts

SRA

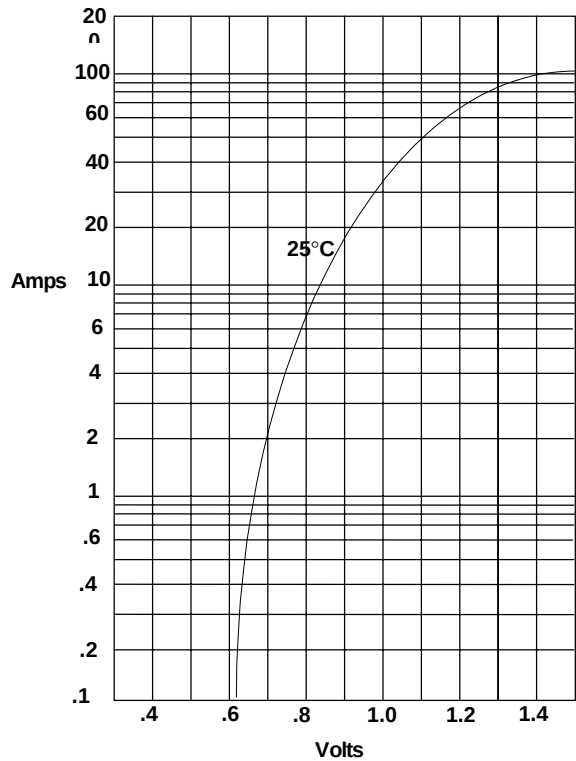


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.332	.342	8.43	8.69	
B	.165	.175	4.19	4.45	
C	.218	.222	5.54	5.64	
D	.234	.246	5.94	6.25	
E	---	5°	---	5°	Nom

SRA251 thru SRA257

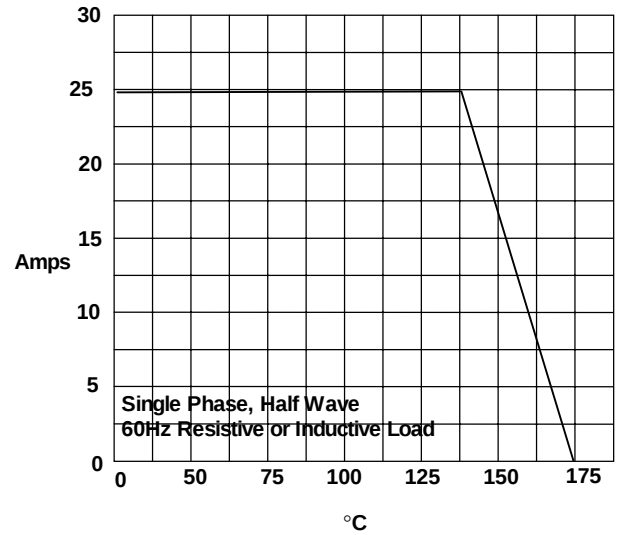


Figure 1
Typical Forward Characteristics



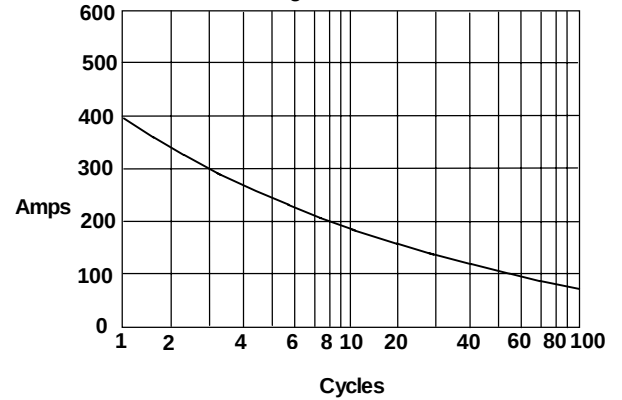
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



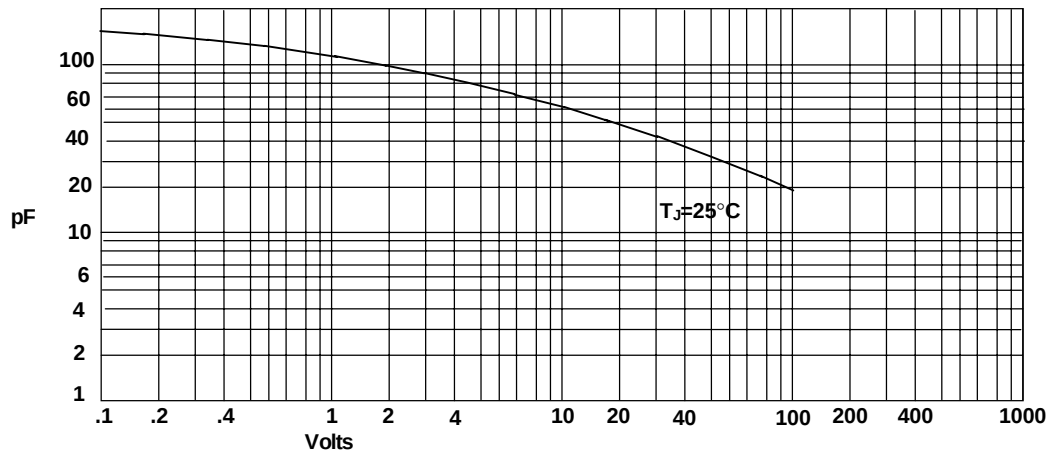
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles

Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts