

Solid State Devices, Inc.

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### **DESIGNER'S DATA SHEET**

#### Part Number / Ordering Information 1/

**SPA560** 

 Screenir	$\frac{2}{TX} = \text{Not Screened}$ $\frac{TX}{TX} = TX \text{ Level}$ TXV = TXV  Level S = S  Level
Lead Bend	= Straight Leads UB = Up Bend DB = Down Bend
Voltage/Family	J = 600 V K = 800 V M = 1000 V

# **SPA560** Series

### 22A / 600-1000V **THREE PHASE BRIDGE RECTIFIER ASSEMBLY** ULTRA FAST - 70 ns

#### Features:

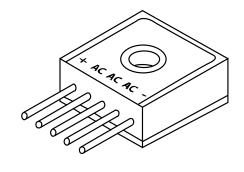
- Higher Blocking Voltage Available. Contact Factory.
- **Average Output Current 22 Amps**
- Low Reverse Leakage Current
- **Constructed with Void-free, Hermetically Sealed Discretes**
- Aluminum Case for Maximum Thermal Conductivity
- Small Package Size (0.89 x 0.89 x 0.39")
- TX and TXV & S Level Screening Available
- Superior Replacement for Sensitron S455DC, S455FC, & **S455GC**
- Standard, Fast, & Hyper Fast Versions Available. **Contact Factory.**

Maximum Ratings <sup>3/</sup>	Symbol	Value	Units		
Peak Inverse Voltage	SPA560J SPA560K SPA560M	PIV	600 800 1000	Volts	
Average Rectified Output Current (T <sub>C</sub> = Case Temperature)	$T_{C} = 55^{\circ}C$ $T_{C} = 100^{\circ}C$	I <sub>01</sub> I <sub>02</sub>	22 15	Amps	
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave, Superimposed on Rated	I <sub>FSM</sub>	125	Amps		
Operating & Storage Temperature		Top & Tstg	-55 to +150	°C	
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.25	°C/W		
Notes:		SPA560	1	1	

1/ For Ordering Information, Price, and Availability Contact Factory.

2/ Screening based on MIL-PRF-19500. Screening flows available on request.

3/ Unless Otherwise Specified, All Maximum Ratings/Electrical Characteristics @25°C.



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RA0091B

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## **SPA560 Series**

Electrical Characteristic <sup>3/</sup>			Min	Тур	Max	Units
<b>Maximum Forward Voltage Per Leg</b> $(T_A = 25^{\circ}C, pulsed)$	$\begin{split} I_F &= 3A \\ I_F &= 9A \end{split}$	V <sub>F1</sub> V <sub>F2</sub>	_	_	1.40 1.75	Volts
<b>Reverse Leakage Current</b> (Rated PIV, $T_A = 25^{\circ}C$ )		I <sub>R1</sub>			10	μА
<b>Reverse Leakage Current</b> (Rated PIV, T <sub>A</sub> = 100°C)		I <sub>R2</sub>			250	μА
Isolation Resistance	1500V	R <sub>ISO</sub>	10	_		MΩ
Reverse Recovery Time $(I_F = 500 \text{ mA}, I_R = 1 \text{ A}, I_{RR} = 250 \text{ mA} \text{ T}_A = 25^{\circ}\text{C}$ (Measured on discrete rectifiers prior to assembly)		trr			70	ns

