



PRELIMINARY

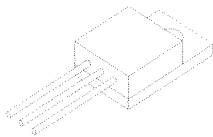
SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

**SFA10PJE  
thru  
SFA30PJE**

**6 AMP  
100-300 VOLTS  
40 nsec  
HYPER FAST  
POSITIVE CENTERTAP  
RECTIFIER**

TO-257 (JE)



## Designer's Data Sheet

### FEATURES:

- Hyper Fast Recovery: 40 nsec Maximum
- PIV to 300 Volts
- Isolated Low Profile Package
- Hermetically Sealed SPD630 Discretes
- Void Free Construction
- For High Efficiency Applications
  
- For Common Anode Configuration:  
SFA10NJE-SFA30NJE
- For Doubler Configuration:  
SFA10DJE-SFA30DJE
  
- TX and TXV Level Screening available

## MAXIMUM RATINGS

| RATING   | SYMBOL     | VALUE       | UNIT  |
|--|------------|-------------|-------|
| Peak Repetitive Reverse and DC Blocking Voltage  | VRRM       | 100         | Volts |
| SFA10PJE<br>SFA20PJE<br>SFA30PJE   | VRWM       | 200         |       |
|  | VR         | 300         |       |
| Average Rectified Forward Current<br>(Resistive Load, 60Hz, Sine Wave, TA=25°C)  | IO         | 6           | Amps  |
| Peak Surge Current<br>(8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow junction to reach equilibrium between pulses, TA=25°C) | IFSM       | 125         | Amps  |
| Operating and storage temperature  | Top & Tstg | -65 to +175 | °C    |
| Maximum Thermal Resistance<br>Junction to Case   | RθJC       | 3.5         | °C/W  |

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

DATA SHEET#: RH0095 C

RMD

# SFA10PJE thru SFA30PJE

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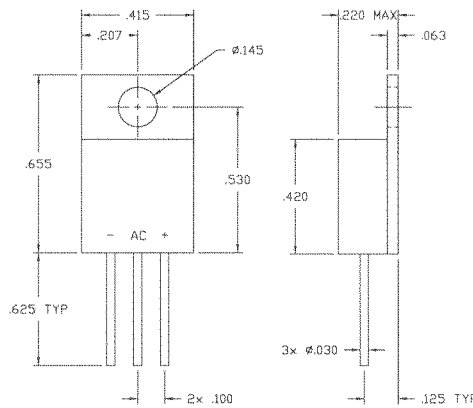
## ELECTRICAL CHARACTERISTICS (Per Leg)

| CHARACTERISTICS   | SYMBOL | MAXIMUM | UNIT |
|---|--------|---------|------|
| Instantaneous Forward Voltage Drop<br>(IF = 6 Adc, TA=25°C, 300-500µs Pulse)  | VF     | 0.95    | Vdc  |
| Instantaneous Forward Voltage Drop<br>(IF = 6 Adc, TA=-55°C, 300-500µs Pulse) | VF     | 1.05    | Vdc  |
| Reverse Leakage Current<br>(Rated VR, TA=25°C, 300µs pulse minimum)           | IR     | 20      | µA   |
| Reverse Leakage Current<br>(Rated VR, TA=100°C, 300µs pulse minimum)          | IR     | 3       | mA   |
| Junction Capacitance<br>(VR = 10 Vdc, TA=25°C, f= 1 MHz)                      | CJ     | 100     | pf   |
| Reverse Recovery Time<br>(IF=500mA, IR=1 A, IRR=250mA, TA=25°C)               | trr    | 40      | nsec |

## CASE OUTLINE: EPOXY TO-257

### PIN OUT:

- PIN 1: Anode 1
- PIN 2: Cathode
- PIN 3: Anode 2



## TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

