



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

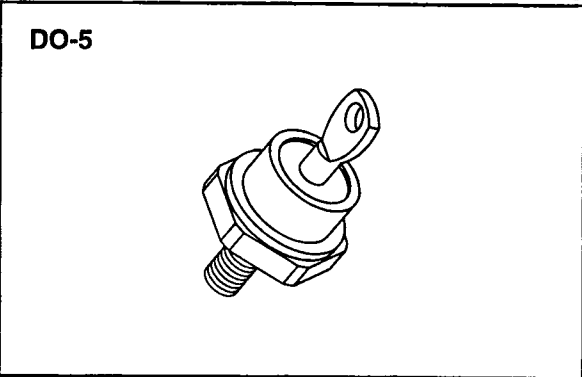
**4R8S
 thru
 15R8S**

Designer's Data Sheet

**40 AMP
 40-150 VOLTS
 50nsec
 EPION®
 RECTIFIER**

FEATURES:

- Radiation Tolerant
- Ultra Fast Recovery: 75 nsec Maximum
- Reverse Voltage to 150 Volts
- Very Low Forward Voltage Drop
- Low Reverse Leakage
- Hermetically Sealed
- Single Chip Construction
- Up to 175°C Operating Temperature



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRM	40	Volts
4R8S		50	
5R8S		70	
7R8S		100	
10R8S		125	
12R8S	VR	150	
15R8S			
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load 60Hz, Sine Wave, TC=55°C)	IO	100	Amps
Peak Repetitive Forward Current (TC=55°C, 8.3ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	IFSM	400	Amps
Peak Surge Current (TC=55°C, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)	IFSM	1000	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Case	RθJC	0.65	°C/W

4R8S
thru
15R8S

PRELIMINARY



SOLID STATE DEVICES, INC

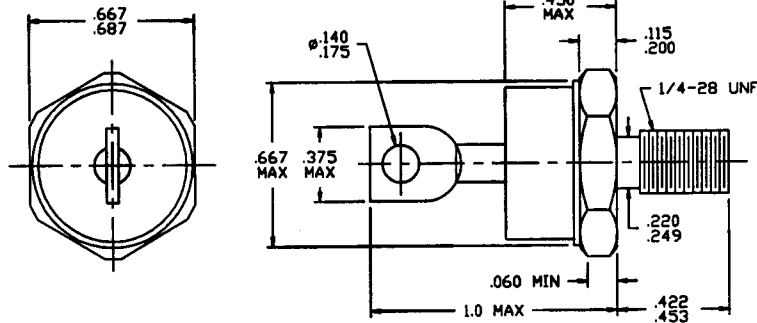
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Maximum Instantaneous Forward Voltage Drop (IF = 100 Adc, TC= 25°C, 300-500µs Pulse)	VF	1.0	Vdc
Maximum Instantaneous Forward Voltage Drop (IF = 100 Adc, TC= - 55°C, 300-500µs Pulse)	VF	1.1	Vdc
Maximum Reverse Leakage Current (Rated VR, TC=25°C)	IR	250*	µA
Maximum Reverse Leakage Current (Rated VR, TC=100°C)	IR	20*	mA
Maximum Junction Capacitance (VR = 10 Vdc, TA=25°C)	CJ	400	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA)	trr	75	nsec

* Lower Leakage Devices Available from Factory.

CASE OUTLINE: DO-5



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

