PRELIMINARY

SOLID STATE DEVICES, INC

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

SDR5807CT/5 thru SDR5811CT/5

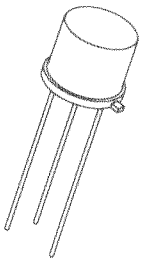
Designer's Data Sheet

12 AMP 50-150 VOLTS 35 nsec HYPER FAST CENTERTAP RECTIFIER

FEATURES:

- Replaces two 1N5807-1N5811 types
- Low cost alternative to two axial devices
- Similar VF to 1N5807-1N5811 types
- Hyper Fast Recovery: 35 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Gold Eutectic Die Attach available
- Ultrasonic Aluminum Wire Bonds
- Lower Thermal Resistance than 1N5807-1N5811
- TX, TXV and Space Level Screening Available

TO-5



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage(Per Leg) **SDR5807CT/5** **SDR5809CT/5** **SDR5811CT/5**	V_{RRM} V_{RWM} V_R	50 100 150	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 1	I_O	12	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave ,TA=25°C) note 1	I_{FSM}	125	Amps
Operating and storage temperature	T_{op} & T_{stg}	-65 to +175	°C
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case, note 1	$R_{\theta JC}$	26 16	°C/W

note 1 Both legs tied together

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET#: RH0149 A	MED

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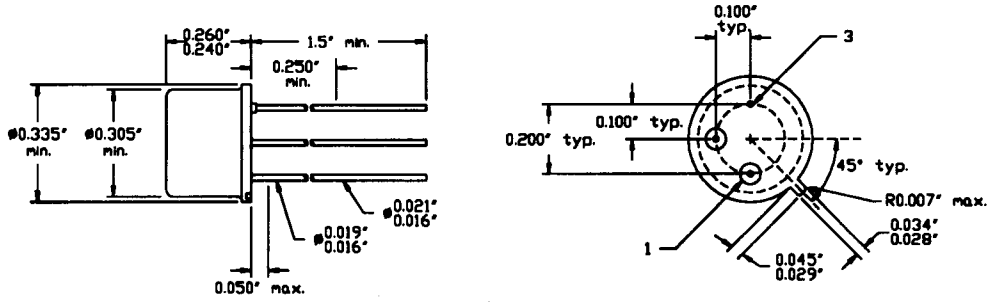
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ELECTRICAL CHARACTERISTICS (Per Leg)

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 2 Adc, TA=25°C, 300µs Pulse) (IF = 4 Adc, TA=25°C, 300µs Pulse) (IF = 6 Adc, TA=25°C, 300µs Pulse)	VF	0.85 0.95 1.00	Vdc
Instantaneous Forward Voltage Drop (IF = 4 Adc, TA= 100°C, 300µs Pulse) (IF = 4 Adc, TA= -55°C, 300µs Pulse)	VF	0.85 1.05	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum)	IR	5	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum)	IR	150	µA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	60	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	35	nsec

CASE OUTLINE: TO-5
PIN 1:ANODE 1
PIN 2: ANODE 2
PIN 3: CATHODE



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

