

SHA394A through SHA394C

30 AMP

HYPER FAST RECOVERY
CENTERTAP RECTIFIER

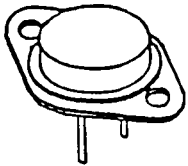
100 - 200 VOLTS

X00039

SSDI

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CASE STYLE
TO-3 WITH 60 MIL PINS



FEATURES

- ▶ COMBINED PERFORMANCE OF TWO DO-4 DISCRETES
- ▶ PIV TO 200 VOLTS
- ▶ HYPER FAST RECOVERY, 35ns MAX
- ▶ HERMETICALLY SEALED
- ▶ VERY LOW FORWARD VOLTAGE DROP
- ▶ SUPERIOR THERMAL RESISTANCE
- ▶ GOLD EUTECTIC DIE ATTACH, NO SOLDER USED
- ▶ ALUMINUM ULTRASONIC WIRE BOND

MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage Per Leg and DC Blocking Voltage Per Leg SHA394A SHA394B SHA394C	VRM(rep) VR	100 150 200	Volts
RMS Reverse Voltage Per Leg SHA394A SHA394B SHA394C	Vr	70 105 140	Volts
Half Wave Rectified Forward Current Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, TC=55°C)	IO	30	Amps
Peak Repetitive Forward Current (TC=55°C, 8.3ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	IFM(rep)	120	Amps
Peak Surge Current (TC=55°C, 8.3ms Pulse, Superimposed on Rated Current at Rated Voltage)	IFM(surge)	350	Amps
Operating and Storage Temperature	TJ, Tstg	-65 to +200	°C

THERMAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Thermal Resistance, Junction to Case Both legs tied together	RθJC	1.6	°C/W

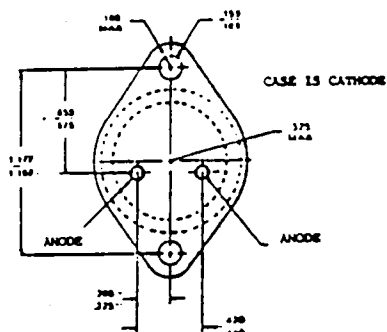
ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	VALUE	UNITS
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle Per Leg (10(MAX), 60Hz, Square Wave, TC=55°C)	VF(AV)	0.47	Vdc
Max Instantaneous Forward Voltage Drop Per Leg (IF= 15 Adc, TC=25C, 300-500us Pulse)	VF	0.93	Vdc
Max Full Cycle Reverse Leakage Current Averaged Over Full Cycle Per Leg (Rated VR, 60Hz, Square Wave, TC= 100°C)	IR(AV)	1	μAdc
Max Reverse Leakage Current Per Leg (Rated VR, TC=25°C)	IR	10	μAdc
Max Junction Capacitance Per Leg (VR = 10V, TC=25°C)	CJ	200	pf

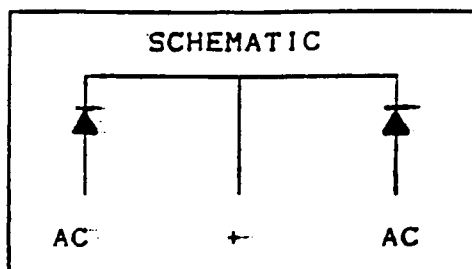
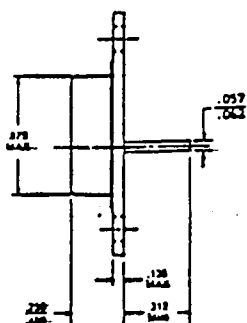
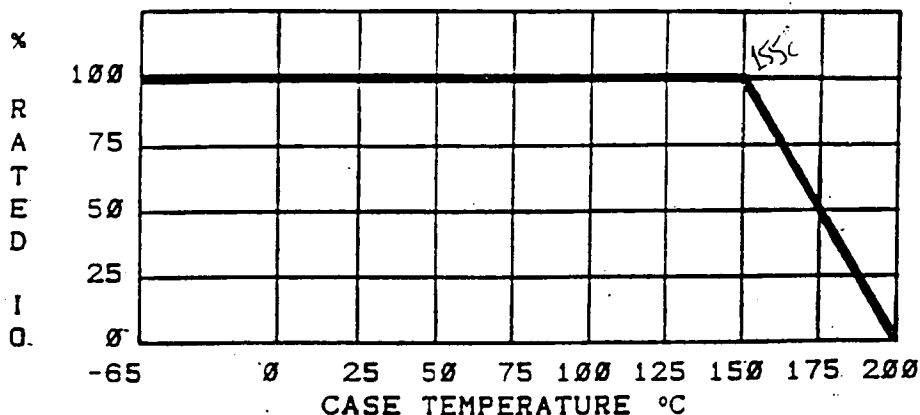
REVERSE RECOVERY CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT
Reverse Recovery Time Per Leg (IF=500mA, IR=1A, IRR=250mA)	trr	--	20	35	ns

PHYSICAL DIMENSIONS



TYPICAL OPERATING CURVES



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