

M~~2~~4M~~2~~4SDR952CT~~/254~~ THROUGH SDR955CT~~/254~~

80 AMP  
ULTRA FAST RECOVERY  
RECTIFIER

POSITIVE CENTERTAP

200 - 500 VOLTS

SSDI

X00185

14849 FIRESTONE BLVD.  
LA MIRADA, CA 90638  
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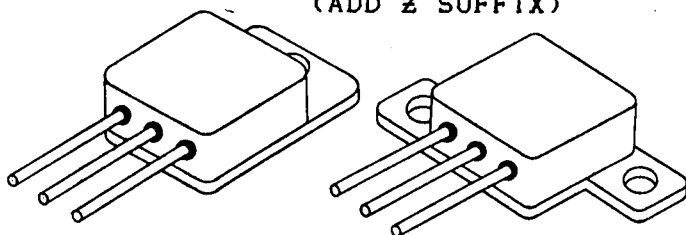
## CASE STYLE

TO-254

"Z"-PACK

(ADD Z SUFFIX)

## FEATURES



- ▶ ISOLATED LOW PROFILE PACKAGE
- ▶ HERMETICALLY SEALED
- ▶ ULTRA FAST RECOVERY 35nsec MAX
- ▶ REVERSE VOLTAGE TO 500 VOLTS
- ▶ LOW REVERSE LEAKAGE, LOW CAPACITANCE
- ▶ 200 °C OPERATING, EUTECTIC DIE ATTACH

## MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage Per Leg and DC Blocking Voltage Per Leg (IR = 100 $\mu$ A)	VRM(rep) VR SDR952CT <del>/254</del> M <del>+</del> <del>Z</del> SDR953CT <del>/254</del> M <del>+</del> <del>Z</del> SDR954CT <del>/254</del> M <del>+</del> <del>Z</del> SDR955CT <del>/254</del> M <del>+</del> <del>Z</del>	200 300 400 500	Volts
RMS Reverse Voltage Per Leg	Vr SDR952CT <del>/254</del> M <del>+</del> <del>Z</del> SDR953CT <del>/254</del> M <del>+</del> <del>Z</del> SDR954CT <del>/254</del> M <del>+</del> <del>Z</del> SDR955CT <del>/254</del> M <del>+</del> <del>Z</del>	140 210 280 350	Volts
Half Wave Rectified Forward Current Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, TC=55 °C)	IO	80	Amps
Peak Repetitive Forward Current (TC=55 °C, 8.3ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	IFM(rep)	300	Amps
Peak Surge Current (TC=55 °C, 8.3ms Pulse, Superimposed on Rated Current at Rated Voltage)	IFM(surge)	900	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	R $\theta$ JC	0.75	°C/W

# ELECTRICAL CHARACTERISTICS

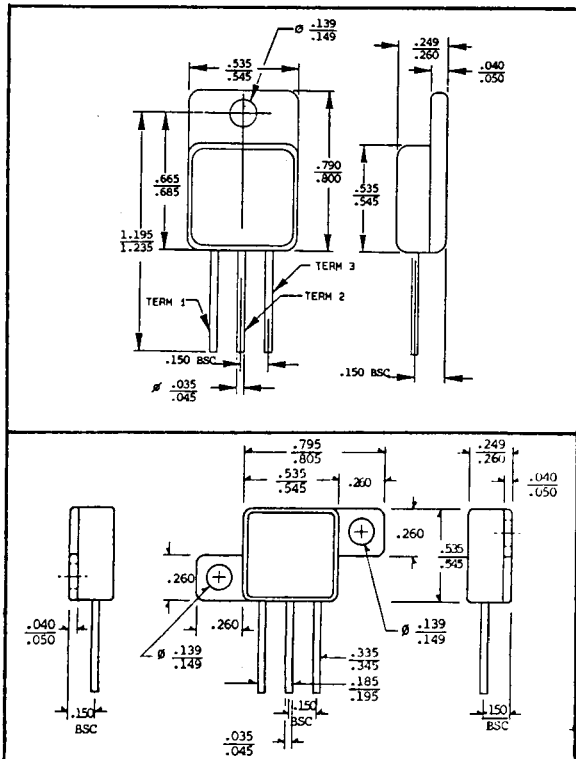
CHARACTERISTIC	SYMBOL	VALUE	UNITS
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle Per Leg (IO(MAX), 60Hz, Square Wave, TC=55 °C)	VF(AV)	0.85	Volts
Max Instantaneous Forward Voltage Drop * Per Leg (IF=40 Adc, TC=25 °C, 300us Pulse)	VF	1.7	Volts
Max Reverse Leakage Current Per Leg * (VR = 80 % Rated VR, TC = 100 °C)	IR	5.0	mAdc
Max Reverse Leakage Current Per Leg (VR = 80 % Rated VR, TC = 25 °C)	IR	50	uAdc
Max Junction Capacitance Per Leg (VR = 10V, TC = 25 °C)	CJ	150	pf

\*) Pulse Test: Pulse Width = 300 μs, Duty Cycle = 2 %.

# REVERSE RECOVERY CHARACTERISTICS

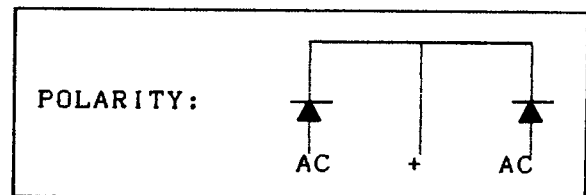
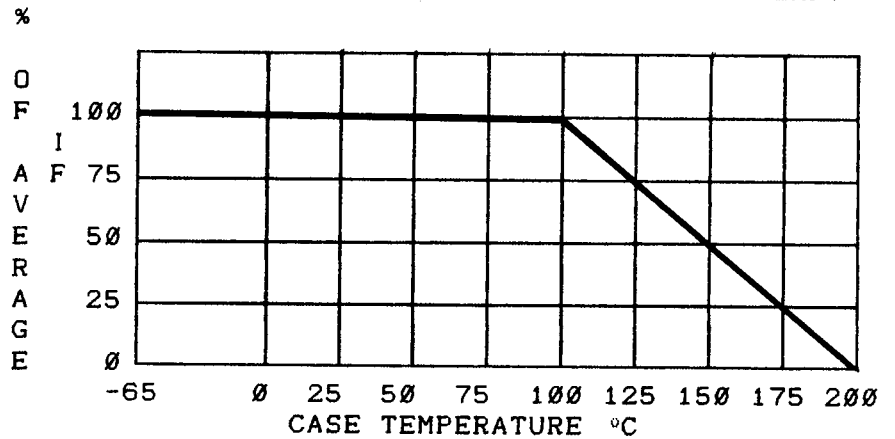
Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time Per Leg (IF=500mA, IR=1A, IRR=250mA)	trr	-	30	35	ns

# PHYSICAL DIMENSIONS



# TYPICAL OPERATING CURVES

MAXIMUM FORWARD CURRENT VS. LEAD TEMP.



**SSDI**

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