



SR820CT THRU SR8A0CT

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current -8.0 Amperes

TO-220AB	FEATURES
<p>Dimensions in inches and (millimeters)</p> <p>The diagram shows the physical dimensions of the TO-220AB package. Key dimensions include: - Case height: 0.160 (4.05) mm - Lead height: 0.140 (3.55) mm - Pin height: 0.105 (2.67) mm - Pin width: 0.095 (2.41) mm - Pin lead length: 0.205 (5.20) mm - Pin lead width: 0.195 (4.95) mm - Pin lead pitch: 0.410 (10.41) mm - Pin lead thickness: 0.037 (0.94) mm - Pin lead spacing: 0.027 (0.68) mm - Pin lead height: 0.635 (16.13) mm - Pin lead width: 0.625 (15.87) mm - Pin lead thickness: 0.390 (9.91) mm - Pin lead spacing: 0.415 (10.54) mm - Pin lead height: 0.145 (3.69) mm - Pin lead width: 0.143 (3.74) mm - Pin lead thickness: 0.113 (2.87) mm - Pin lead spacing: 0.103 (2.62) mm - Pin lead height: 0.185 (4.70) mm - Pin lead width: 0.175 (4.44) mm - Pin lead thickness: 0.057 (1.45) mm - Pin lead spacing: 0.051 (1.30) mm - Pin lead height: 0.560 (14.2) mm - Pin lead width: 0.530 (13.4) mm - Pin lead thickness: 0.350 (8.89) mm - Pin lead spacing: 0.330 (8.38) mm - Pin lead height: 0.145 (3.68) mm - Pin lead width: 0.135 (3.43) mm - Pin lead thickness: 0.059 (14.22) mm - Pin lead spacing: 0.053 (13.46) mm - Pin lead height: 1.148 (29.16) mm - Pin lead width: 1.118 (28.40) mm - Pin lead thickness: 0.022 (0.58) mm - Pin lead spacing: 0.014 (0.35) mm - Pin 1: OUT - Pin 2: OUT - Pin 3: CASE </p>	<ul style="list-style-type: none"> ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 ◆ Construction utilizes void-free molded plastic technique ◆ Low reverse leakage ◆ High forward surge current capability ◆ High temperature soldering guaranteed: 250°C, 0.25" (6.35mm) from case for 10 seconds

MECHANICAL DATA

Case: TO-220AB molded plastic body

Terminals: Leads solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any

Weight: 0.080 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	SR 820CT	SR 830CT	SR 840CT	SR 845CT	SR 850CT	SR 860CT	SR 870CT	SR 880CT	SR 890CT	SR 8A0CT	UNITS	
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	45	50	60	70	80	90	100	VOLTS	
Maximum RMS voltage	V _{RMS}	14	21	28	32	35	42	49	56	63	70	VOLTS	
Maximum DC blocking voltage	V _{Dc}	20	30	40	45	50	60	70	80	90	100	VOLTS	
Maximum average forward rectified current (see fig.1)	I _(AV)	8.0									Amps		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150.0									Amps		
Maximum instantaneous forward voltage at 8.0A	V _F	0.65			0.75			0.85			Volts		
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	1.0			50.0			15.0			mA		
Typical junction capacitance (NOTE 1)	C _J	300			250			3.0			pF		
Typical thermal resistance (NOTE 2)	R _{θJC}	3.0											°C/W
Operating junction temperature range	T _J	-65 to +125			-65 to +150			-65 to +150			°C		
Storage temperature range	T _{STG}	-65 to +150											°C

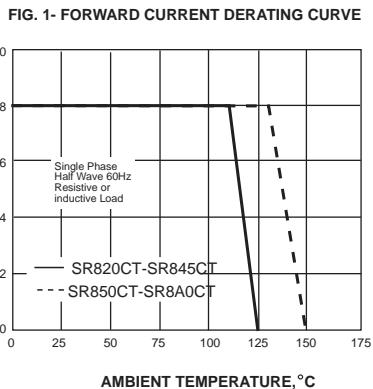
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to case

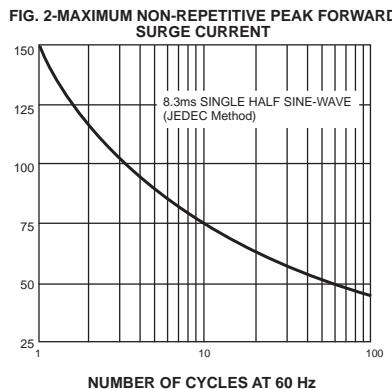
MDD ELECTRONIC

RATINGS AND CHARACTERISTIC CURVES SR820CT THRU SR8A0CT

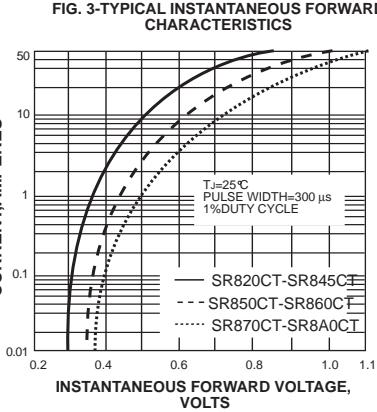
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES



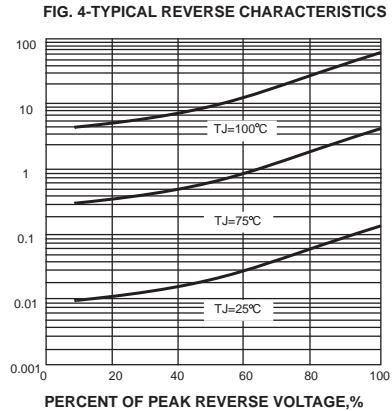
PEAK FORWARD SURGE CURRENT,
AMPERES



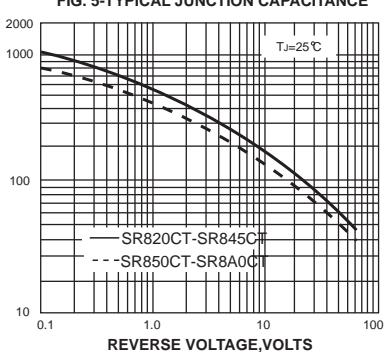
INSTANTANEOUS FORWARD
CURRENT,AMPERES



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE,
°C/W

