Schottky Barrier Rectifier

Features

- Fast switching speed
- Low forward voltage
- Low power loss for high efficiency
- High surge capability
- High temperature soldering guaranteed:
  250℃/10 seconds, 0.16(4.06mm) lead length
- Also available with reversed polarity, add and “R” suffix, i.e.SR820R
- RoHS and REACH Compliance

Mechanical Data

Case:	Transfer molded plastic
Polarity:	As marked
Epoxy:	UL94V-0 rate flame retardant
Lead:	Plated axial lead, solderable per MIL-STD-202E method 208C
Weight:	0.064 ounce, 1.81 gram

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	SR820	SR830	SR835	SR840	SR845	SR850	SR860	SR880	SR8100	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	20	30	35	40	45	50	50	80	100	**V**	
VRMS	Max RMS Voltage	14	21	25	28	32	35	42	56	70	**V**	
VDC	Max DC Blocking Voltage	20	30	35	40	45	50	50	800	100	**V**	
I(AV)	Max Average Forward Rectified Current	8.0									**A**	Note 1 TL = 85℃ TL = 90℃
IFSM	Peak Forward Surge Current	150									**A**	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150 , -55 to +150									℃	
RθJA	Typical Thermal Resistance	3.0									℃/W	Note 2

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	SR820	SR830	SR835	SR840	SR845	SR850	SR860	SR880	SR8100	Unit	Conditions
VF	Max Instantaneous Forward Voltage	0.65			0.75			0.80			**V**	8.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0									**mA**	TA=25℃
		50										TA=100℃
CJ	Typical Junction Capacitance	580				480					**pF**	Measured at 1.0MHz / 4.0V

Note:

1. Pulse Test: 300μS pulse width 1% duty cycle

SR820 ~ SR8100

RATINGS AND CHARACTERISTIC CURVES SR820 THRU SR8100

FIG.1—TYPICAL FORWARD CURRENT DERATING CURVE

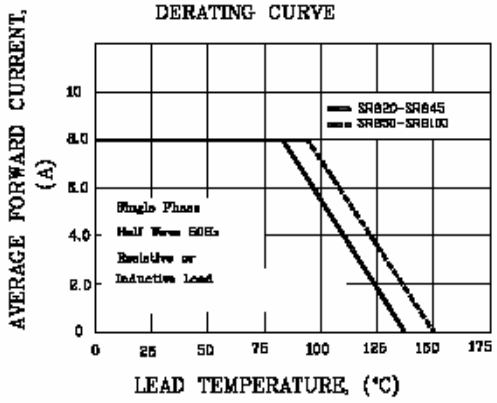


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

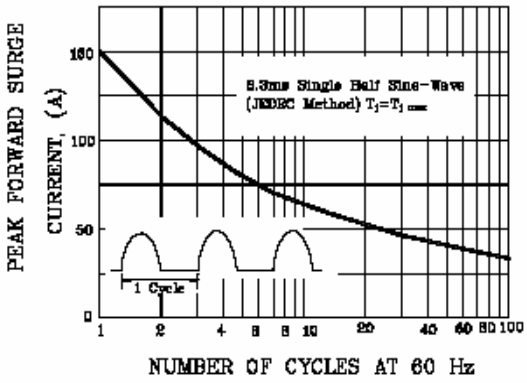


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

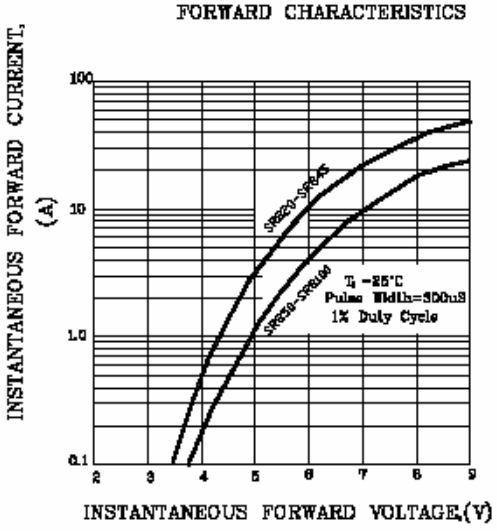


FIG.4—TYPICAL REVERSE CHARACTERISTICS

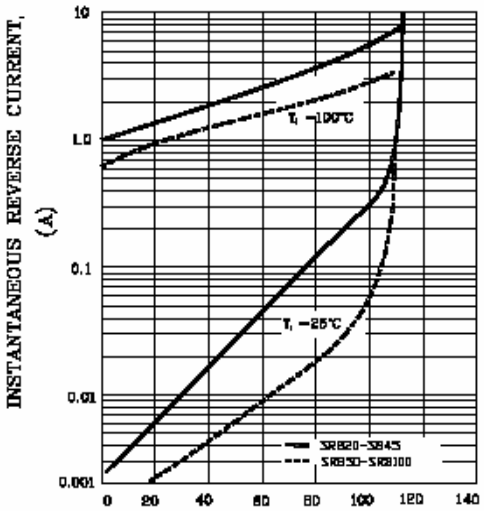
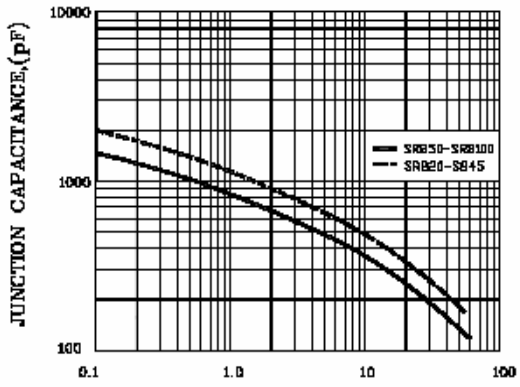
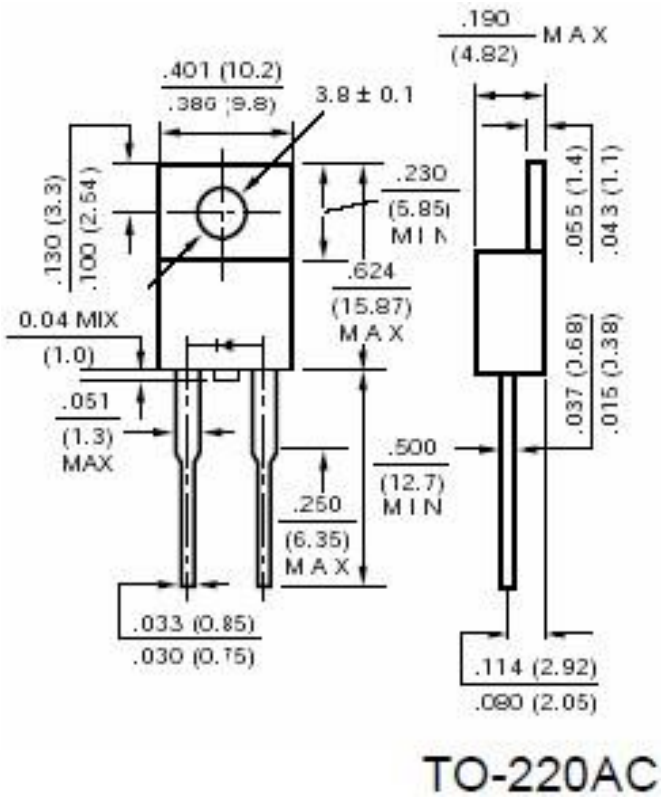


FIG.5—TYPICAL JUNCTION CAPACITANCE



SR820 ~ SR8100

Dimensions in inches (mm)



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