

# SR2090 THUR SR20100

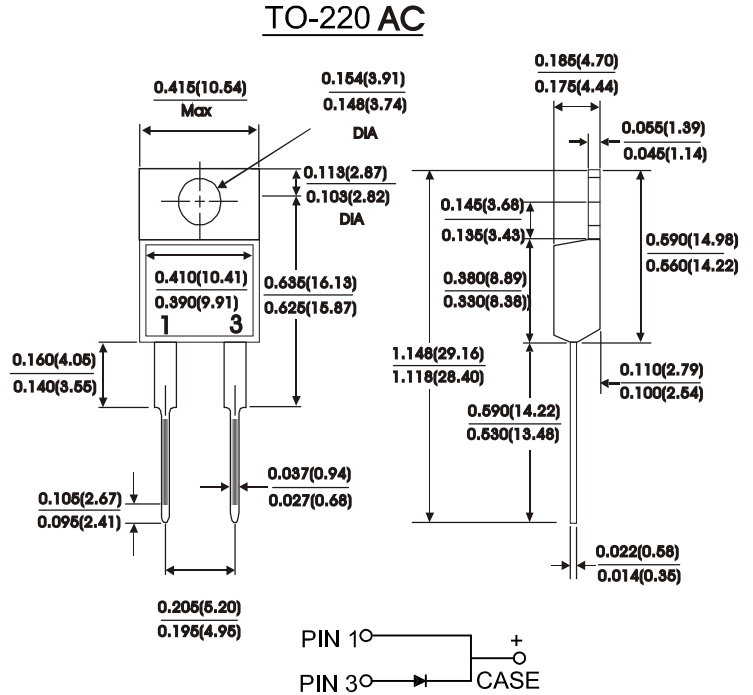
## SCHOTTKY BARRIER RECTIFIERS

### FEATURES:

- Plastic package Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction Majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High temperature soldering guaranteed: 250°C/10 seconds, 0.25"(6.35mm) from case

### MECHANICAL DATA

Case : JEDEC TO-220AC molded plastic  
 Terminals : Leads solderable per MIL-STD-750 Method 2026  
 Polarity : As marked  
 Mounting Postition : Any  
 Mounting Torque 5 in - lbs. max  
 Weight : 0.08 ounce, 2.24 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temperature unless otherwise specified.  
 Single phase half wave, 60 Hz resistive or inductive load.  
 For capacitive load, derate current by 20%.

Characteristic	Symbol	SR2090	SR20100	Units
Maximum recurrent peak reverse voltage	$V_{RRM}$	90	100	Volts
Maximum RMS voltage	$V_{RMS}$	63	70	Volts
Maximum DC blocking voltage	$V_{DC}$	90	100	Volts
Maximum average forward rectified current at $T_C=125^\circ C$	$I_O$	20		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	300		Amps
Maximum instantaneous forward voltage (NOTE 2) $I_F=20 A$	$V_F$	0.95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 2) $T_C=25^\circ C$ $T_C=100^\circ C$	$I_R$	0.1 6.0		mA
Typical thermal resistance (NOTE 1)	$R_{th-JC}$	3.5		°C/W
Operating temperature range	$T_J$	-65to+150		°C
Storage temperature range	$T_{Stg}$	-65to+175		°C

NOTES:  
 (1) Thermal resistance from junction to case  
 (2) Pulse test : 300 us pulse width, 1% duty cycle

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

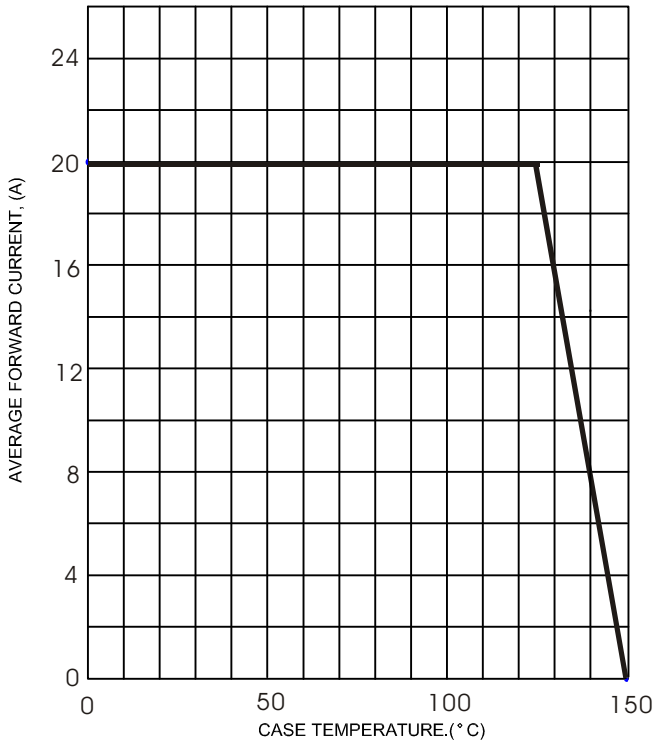


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

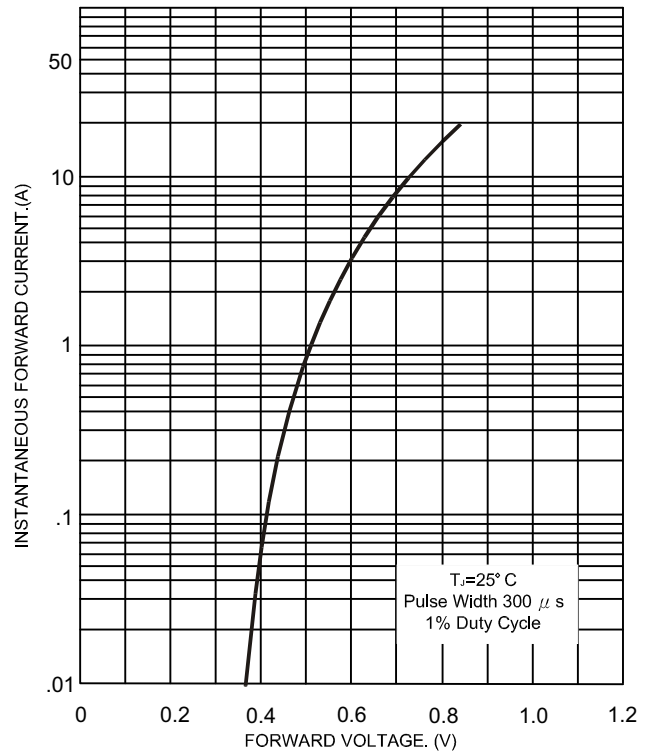


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

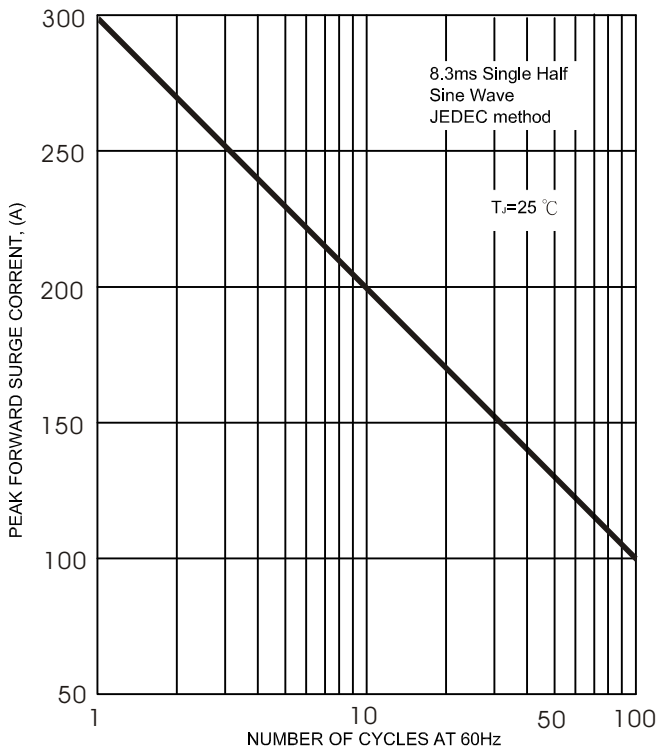


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

