



16.0 AMPS. Surface Mount Schottky Barrier Rectifiers

SRS1620 - SRS16150

D²PAK

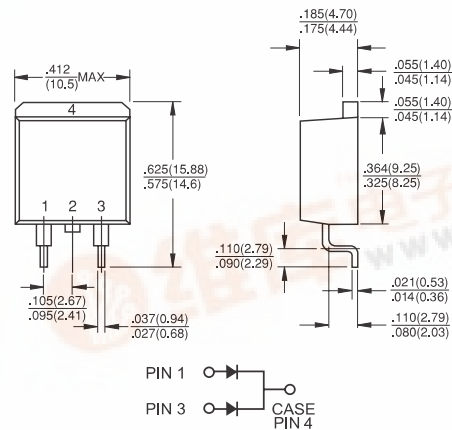


Features

- ✧ For surface mounted application
- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

Mechanical Data

- ✧ Cases: D²PAK molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Pure tin plated, lead free.
solderable per MIL-STD-202, Method 208
guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed:
260°C/10 seconds at terminals
- ✧ Weight: 1.70 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%

Type Number	Symbol	SRS 1620	SRS 1630	SRS 1640	SRS 1650	SRS 1660	SRS 1690	SRS 16100	SRS 16150	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	90	10	150	V
Maximum Average Forward Rectified Current See Fig. 1	I _(AV)	16								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150								A
Maximum Instantaneous Forward Voltage @8.0A	V _F	0.55			0.70		0.90		1.00	V
Maximum D.C. Reverse Current @ Tc=25 °C at Rated DC Blocking Voltage @ Tc=100 °C	I _R	0.5					0.1			mA
		15			10		5.0		mA	
Typical Junction Capacitance (Note 2)	C _j	700			460		320			pF
Typical Thermal Resistance (Note 1)	R _{θJC}	2.0								°C/W
Operating Junction Temperature Range	T _J	-65 to +125				-65 to +150				°C
Storage Temperature Range	T _{STG}	-65 to +150								°C

Notes: 1. Thermal Resistance from Junction to Case Per Leg
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (SRS1620 THRU SRS16150)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

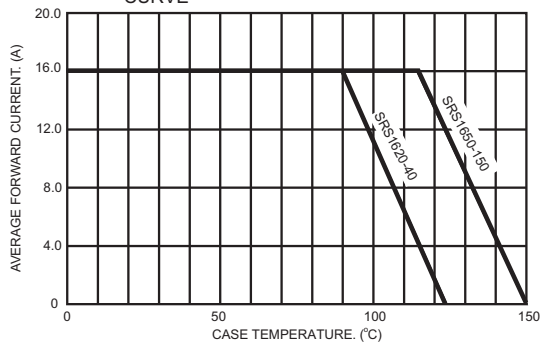


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

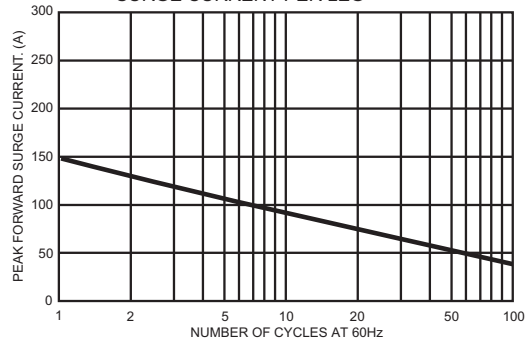


FIG.3- TYPICAL FORWARD CHARACTERISTICS PER LEG

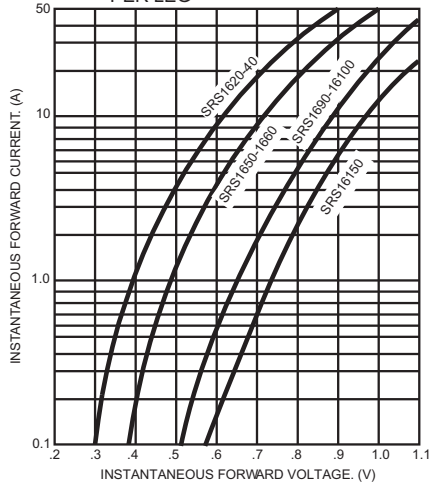


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

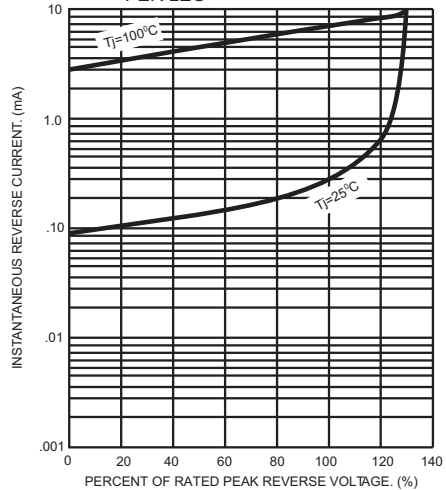


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

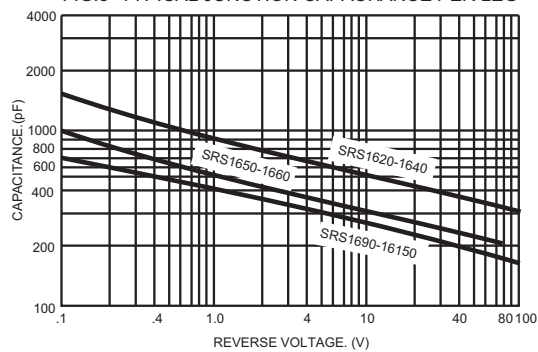


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

