



**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 50 Volts CURRENT 30 Amperes**

**FEATURES**

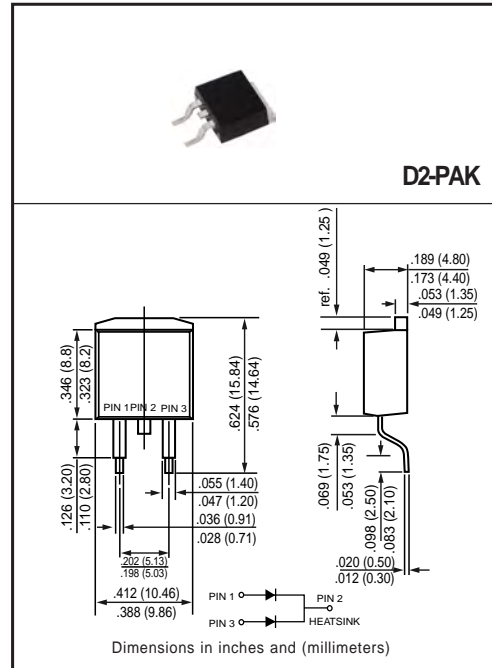
- \* Low switching noise
- \* Low forward voltage drop
- \* Low thermal resistance
- \* High current capability
- \* High switching capability
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

- \* Case: D2-PAK molded plastic
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 3.61 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

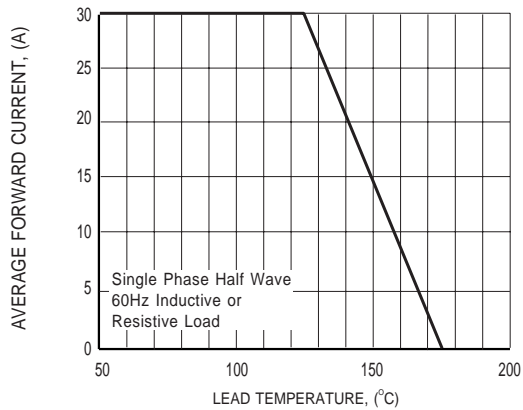
RATINGS	SYMBOL	SR3050CS	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	Volts
Maximum RMS Voltage	$V_{RMS}$	35	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	$I_O$	30	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	300	Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	1.5	°C/W
	$R_{\theta JA}$	30	
Operating Temperature Range	$T_J$	175( $T_J \leq 200^\circ\text{C}$ in By pass Mode)	°C
Storage Temperature Range	$T_{STG}$	-55 to + 175	°C

**ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)**

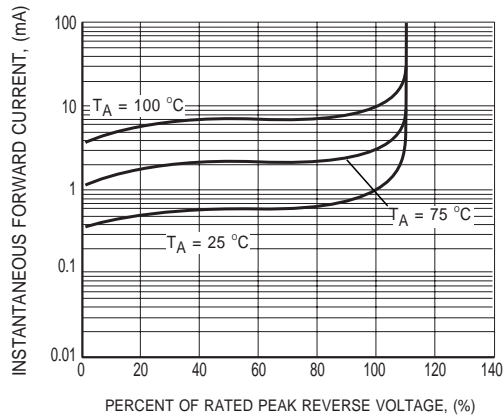
CHARACTERISTICS	SYMBOL	SR3050CS	UNITS
Maximum Instantaneous Forward Voltage at 15.0A DC	$V_F$	.65	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	$I_R$	@ $T_A = 25^\circ\text{C}$	1.0
		@ $T_A = 100^\circ\text{C}$	10

- NOTES : 1. Thermal Resistance : Heat-sink mounted.  
 2. Suffix "A" = Common Anode.  
 3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
 4. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

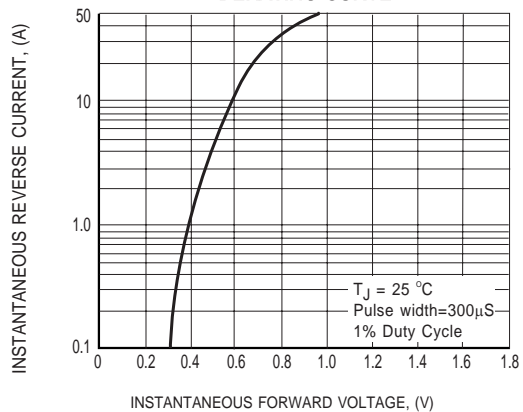
## RATING AND CHARACTERISTICS CURVES ( SR3050CS )



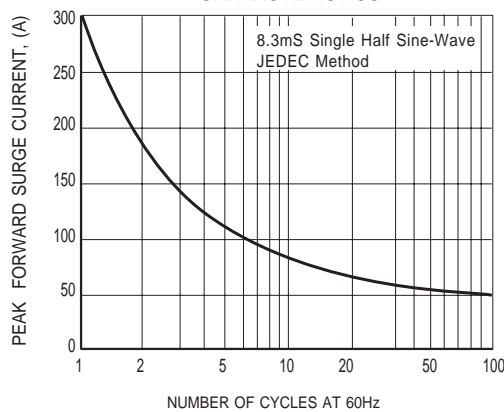
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.2 TYPICAL REVERSE CHARACTERISTICS**



**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

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