



PRELIMINARY

SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

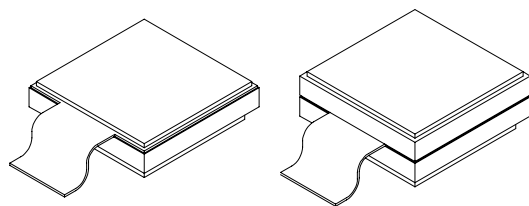
Phone: (562) 404-7855 * Fax: (562) 404-1773

Designer's Data Sheet**FEATURES:**

- Low Forward Voltage Drop
- Low Reverse Leakage
- Surface Mountable Package
- Guard Ring for Overvoltage Protection and Ruggedness
- 150°C Operating Temperature
- Hermetically Sealed Package
- Eutectic Die Attach
- Hyper Fast Soft Recovery
- TX, TXV and Space Level Screening Available

**SED30KE600
SED30KW600****30 AMP
600 VOLTS
HYPER FAST
RECTIFIER**

SEDPACK 2



Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	600	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, $T_C = 100^\circ\text{C}$)	I_o	30	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , allow junction to reach equilibrium between pulses, $T_C = 100^\circ\text{C}$)	I_{FSM}	300	Amps
Operating and Storage Temperature	Top & Tstg	-55 TO +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	0.9	$^\circ\text{C/W}$

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RC0044A

SED30KE600 SED30KW600

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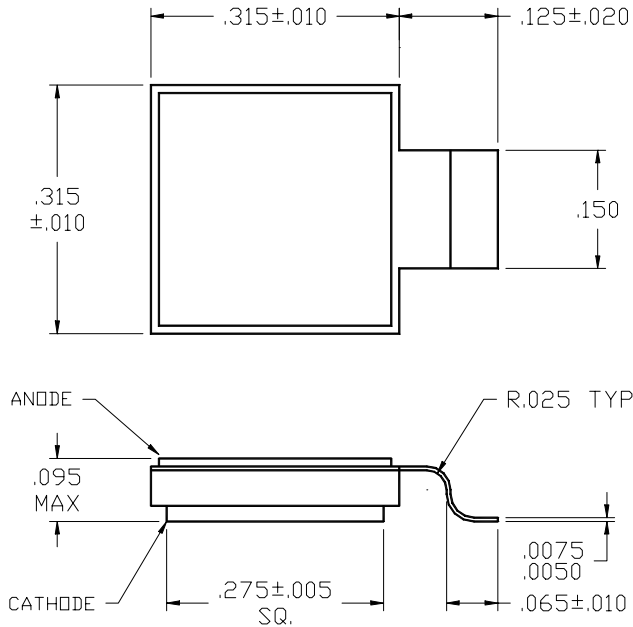


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Electrical Characteristics		SYMBOL	VALUE	UNITS
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μs Pulse)	$I_F = 20\text{A}_{\text{DC}}$	V_{F1}	1.15	V_{DC}
	$I_F = 30\text{A}_{\text{DC}}$	V_{F2}	1.30	
Minimum Reverse Blocking Voltage ($I_R = 100\mu\text{A}$, 300 μsec pulse minimum)		BV_R	600	V_{DC}
Reverse Leakage Current ($V_R = 480\text{V}$, 300 μsec pulse minimum)	$T_A = 25^\circ\text{C}$	I_{R1}	0.50	μA
	$T_A = 125^\circ\text{C}$	I_{R2}	5	mA
Junction Capacitance ($V_R = 5V_{\text{DC}}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	5000	pF
Reverse Recovery Time ($I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{\text{RR}} = 250\text{mA}$, $T_A = 25^\circ\text{C}$)		t_{RR}	35	nsec

CASE OUTLINE: P/N SED30KE600



CASE OUTLINE: P/N SED30KW600

