



Solid State Devices, Inc.

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SED60KB25 SED60KE25

60 AMP SUPER SCHOTTKY RECTIFIER 25 VOLTS

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SED60 25

- L Screening^{2/} = None
 - TX = TX Level
 - TXV = TXV Level
 - S = S Level
- L Configuration
 - KB = without lead
 - KE = with lead

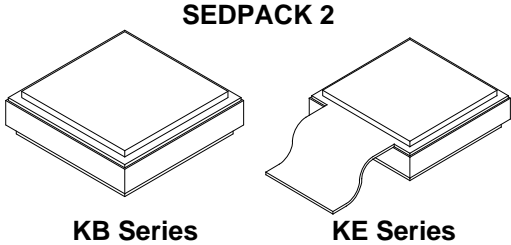
FEATURES:
Optimized for 2.1V and 3.3V output power supplies. The SUPER SCHOTTKY series has been designed to provide ultra low forward voltage drops at low operating temperatures of 75°C.

- Low V_F , less than 300mV at 75°C
- Low Reverse Leakage
- Surface Mountable
- Guard Ring for Overvoltage Protection and Ruggedness
- 100°C Operating Temperature
- Hermetic Package
- TX, TXV, and Space Level Screening Available^{2/}

Typical applications include parallel switching power supplies, converters, battery protection circuits, and redundant power subsystems.

MAXIMUM RATINGS	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	25	Volts
Average Rectified Forward Current (Resistive load, 60 Hz, sine wave, $T_J = 75^\circ\text{C}$)	I_O	60	Amps
Peak Surge Current (8.3 ms pulse, half sine wave superimposed on I_O , allow junction to reach equilibrium between pulses, $T_J = 25^\circ\text{C}$)	I_{FSM}	500	Amps
Operating and Storage Temperature	T_{OP} & T_{STG}	-55 to +100	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	0.80	°C/W

Notes:
 1/ For ordering information, price, operating curves, and availability – contact factory.
 2/ Screening based on MIL-PRF-19500. Screening flows available on request.





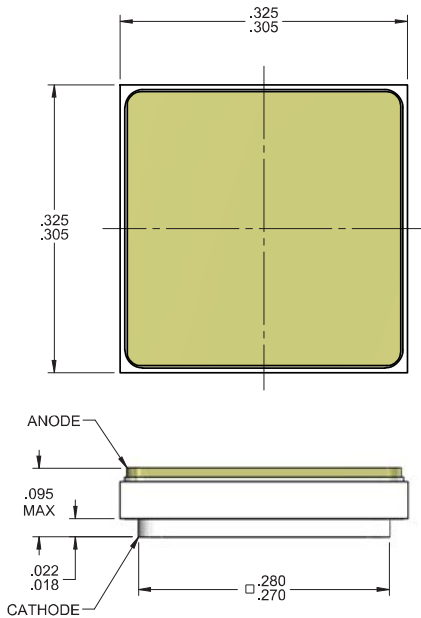
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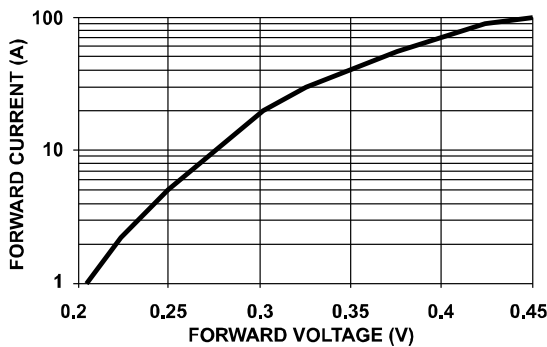
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ELECTRICAL CHARACTERISTICS		Symbol	Max	Unit
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec pulse)	$I_F = 30\text{A}_{\text{DC}}$	V_{F1}	0.370	V_{DC}
	$I_F = 60\text{A}_{\text{DC}}$	V_{F2}	0.420	
Instantaneous Forward Voltage Drop ($I_F = 30\text{A}_{\text{DC}}$, $T_A = 75^\circ\text{C}$, 300 μsec Pulse)		V_{F3}	0.300	V_{DC}
Reverse Leakage Current ($T_J = 25^\circ\text{C}$, 300 μsec pulse minimum)	$V_R = 3.3\text{V}$	I_{R1}	15	mA
	$V_R = 25\text{V}$	I_{R2}	50	
Reverse Leakage Current ($T_J = 75^\circ\text{C}$, 300 μsec pulse minimum)	$V_R = 3.3\text{V}$	I_{R3}	150	mA
	$V_R = 25\text{V}$	I_{R4}	500	
Reverse Leakage Current ($T_J = 100^\circ\text{C}$, 300 μsec pulse minimum)	$V_R = 3.3\text{V}$	I_{R5}	325	mA
	$V_R = 15\text{V}$	I_{R6}	700	
Junction Capacitance ($V_R = 5\text{V}_{\text{DC}}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	5000	pF

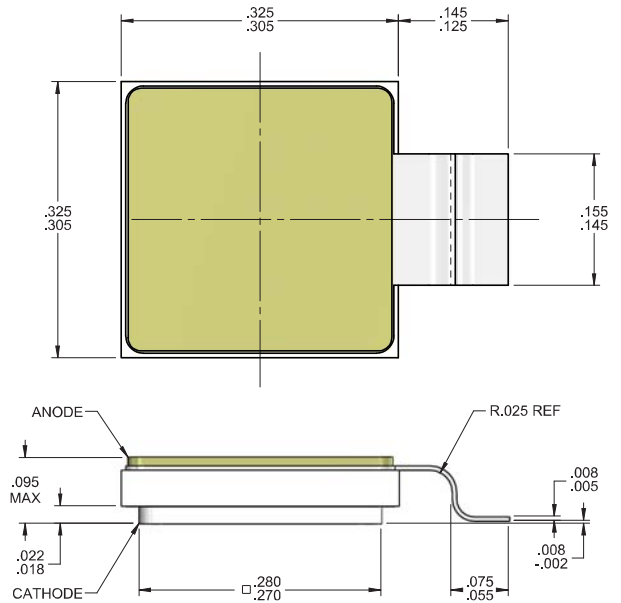
CASE OUTLINE: SED60KB25



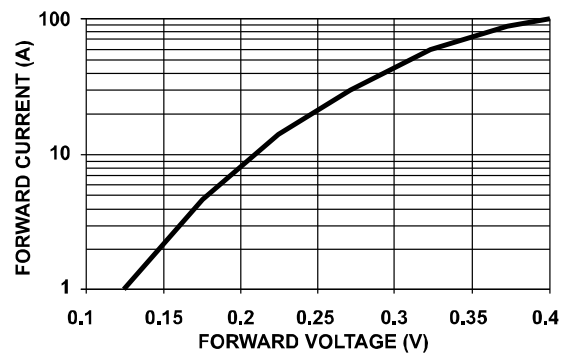
FORWARD VOLTAGE @ $T_J = 25^\circ\text{C}$



CASE OUTLINE: SED60KE25



FORWARD VOLTAGE @ $T_J = 75^\circ\text{C}$



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

DATA SHEET #: SH0010B

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