



Solid State Devices, Inc.

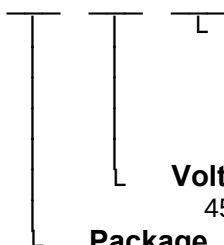
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SED30KB45 SED30KE45

Designer's Data Sheet

Part Number / Ordering Information^{1/}

SED30



Screening^{2/}

— = Not Screened
TX = TX Level
TXV = TXV Level
S = S Level

Voltage

45 = 45 V

Package

KB = Sedpack 2
KE = Sedpack 2 with Lead

**30 AMPS
45 VOLTS
POWER SCHOTTKY DIODE**

FEATURES:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Hermetically Sealed Surface Mount Package
- Guard Ring for Overvoltage Protection
- Eutectic Die Attach
- TX, TXV, and Space Level Screening Available. Contact Factory.

MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage		V_{RRM} V_{RWM} V_R	45	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A = 100^\circ\text{C}$)		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, $T_A = 25^\circ\text{C}$)		I_{FSM}	500	Amps
Operating and Storage Temperature		T_{OP} & T_{stg}	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case		$R_{\theta JC}$	0.80	$^\circ\text{C/W}$

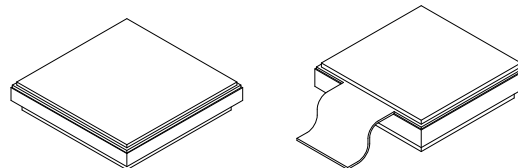
NOTES:

^{1/} For ordering information, price, and availability - contact factory.

^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.

^{3/} Unless otherwise specified, all electrical characteristics @25°C.

SEDPACK 2



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

DATA SHEET #: SH0032C

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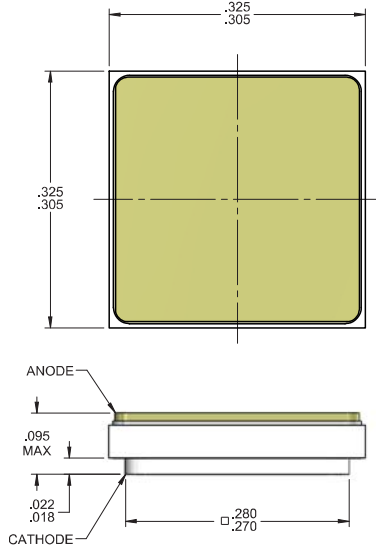
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SED30KB45

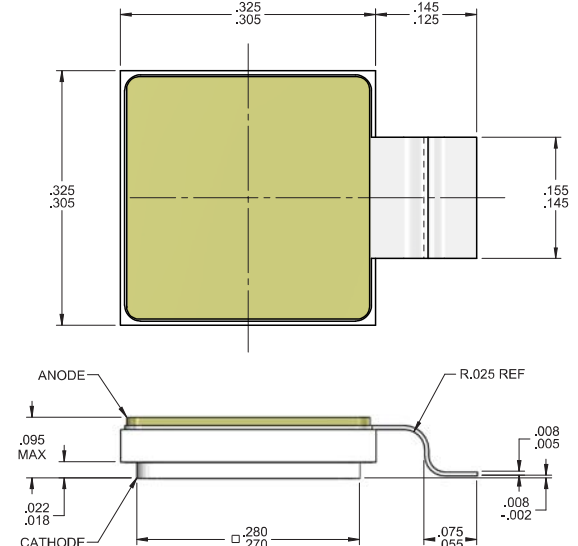
SED30KE45

ELECTRICAL CHARACTERISTICS	Symbol	-55	25	100	125	150	Unit
Instantaneous Forward Voltage Drop typical ($I_F = 5$ Amps, 300 μ sec Pulse) maximum	V_F	455 520	350 400	250 -	210 275	180 -	mVolts
Instantaneous Forward Voltage Drop typical ($I_F = 15$ Amps, 300 μ sec Pulse) maximum	V_F	490 580	400 475	320 -	290 375	265 -	mVolts
Instantaneous Forward Voltage Drop typical ($I_F = 30$ Amps, 300 μ sec Pulse) maximum	V_F	525 620	455 530	395 -	370 450	355 -	mVolts
Reverse Leakage Current typical (Rated V_R , 300 μ sec pulse minimum) maximum	I_R	0.015 -	0.31 5	50 -	175 300	485 -	mA
Junction Capacitance typical ($V_R = 10$ V _{DC} , $T_A = 25^\circ\text{C}$, $f = 1$ MHz) maximum	C_J	-	2200 2600	-	-	-	pF

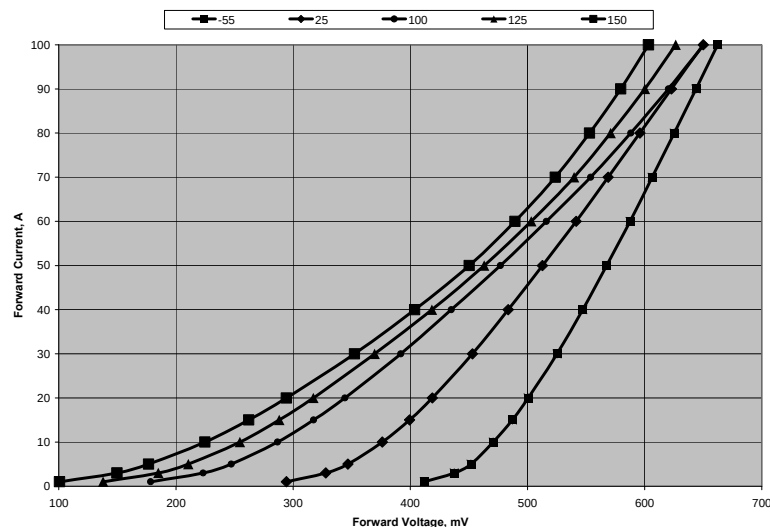
CASE OUTLINE: SED30KB45



CASE OUTLINE: SED30KE45



Typical Forward Voltage Curves



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