Solid State Devices, Inc.
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Phone: (562) 404-4474 * Fax: (562) 404-1773
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SED10HB45, SED10HE45 and SED10HF45

Designer's Data Sheet

Part Number / Ordering Information [1/]

SED10__ 45 __

- **Screening**[2/] = None, TX = TX Level, TXV = TXV Level, S = S Level
- **Configuration**: HB = without lead, HE = with lead, HF = with lead, reverse polarity

10 AMP
45 VOLTS
SCHOTTKY RECTIFIER

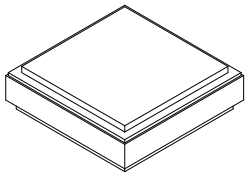
FEATURES:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Hermetically Sealed Power Surface Mount Package
- Guard Ring for Overvoltage Protection
- Eutectic Die Attach
- 175°C Operating Temperature
- TX, TXV, and Space Level Screening Available[2/]

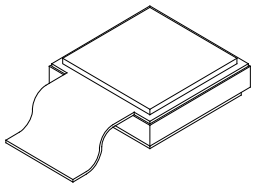
MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage		V_{RRM} V_{RWM} V_R	45	**Volts**
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, T_A = 100°C)		I_O	10	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, 1 pulse, T_A = 25°C)		I_{FSM}	250	**Amps**
Operating and Storage Temperature		T_{OP} & T_{stg}	-55 to +175	°C
Maximum Thermal Resistance Junction to Case	SED10HB45 SED10HE45 SED10HF45	$R_{\theta JC}$	1.25 1.25 3.00	°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.

SEDPACK 1



HB Series



HE / HF Series

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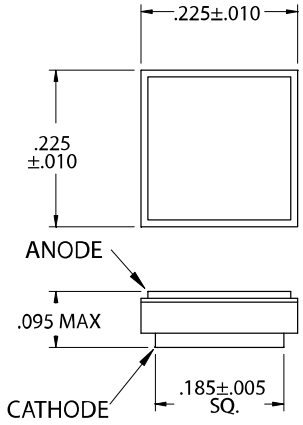
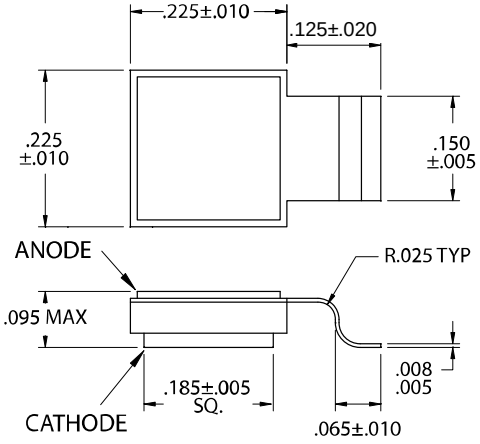
SED10HB45, SED10HE45 and SED10HF45

ELECTRICAL CHARACTERISTICS		Symbol	Maximum	Typical	Unit
Instantaneous Forward Voltage Drop (I_F =5 A_{DC}, 300-500 μsec Pulse)	T_A = -55°C T_A = 25°C T_A = 125°C	V_{F1} V_{F2} V_{F3}	- 0.52 -	0.58 0.48 0.36	V_{DC}
Instantaneous Forward Voltage Drop (I_F =10 A_{DC}, 300-500 μsec Pulse)	T_A = -55°C T_A = 25°C T_A = 125°C	V_{F4} V_{F5} V_{F6}	- 0.56 0.49	0.62 0.54 0.44	V_{DC}
Instantaneous Forward Voltage Drop (I_F =20 A_{DC}, 300-500 μsec Pulse)	T_A = -55°C T_A = 25°C T_A = 125°C	V_{F7} V_{F8} V_{F9}	- 0.69 -	0.69 0.64 0.57	V_{DC}
Reverse Leakage Current (Rated V_R, 300 μsec pulse minimum)	T_A = 25°C T_A = 100°C T_A = 125°C	I_{R1} I_{R2} I_{R3}	0.25 - 25	0.02 3 18	mA
Junction Capacitance (T_A = 25°C, f = 1 MHz)	V_R = 5V V_R = 10V	C_{J1} C_{J2}	900 -	780 580	pF

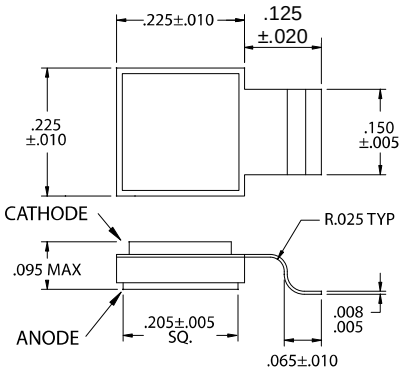
CASE OUTLINE: SED10HB45



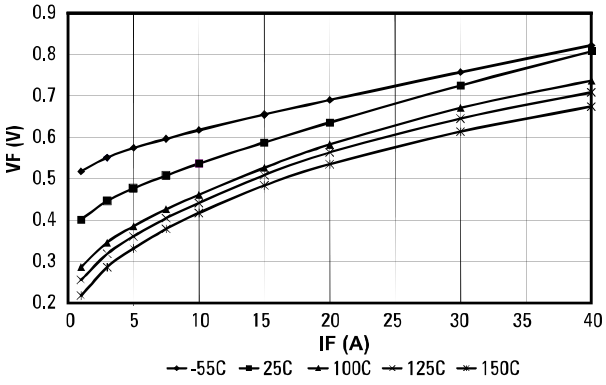
CASE OUTLINE: SED10HE45



CASE OUTLINE: SED10HF45



SED10HE45: VF(ave)= f(T, IF)



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	**DATA SHEET #: RS0002H**	**DOC**