



## Solid State Devices, Inc.

14701 Firestone Blvd \* La Mirada, Ca 90638  
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### Designer's Data Sheet

#### Part Number/Ordering Information <sup>1/</sup>

SD 01 40 \_ \_

#### L Screening <sup>2/</sup>

\_ = Not Screened  
TX = TX Level  
TXV = TXV Level  
S = S Level

#### L Package Type

SO8 = 8 Pin SOIC  
SO16 = 16 Pin SOIC

# SD0140

## 1 AMP, 400 VOLTS SCHOTTKY DIODE ARRAY

#### FEATURES:

- An array of 4 or 8 diodes – each leg has 2 diodes in series for redundancy
- High reliability hermetic ceramic packages
- Low capacitance
- Low leakage
- TX, TXV, and S level screening available – consult factory

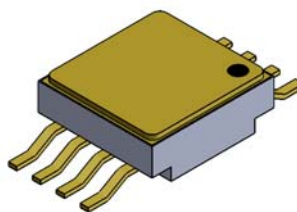
#### MAXIMUM RATINGS <sup>3/</sup>

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage and DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	400	Volts
Average Rectified Forward Current <sup>4/</sup> (Resistive Load, 60 Hz Sine Wave)	$I_O$	$T_A = 55^{\circ}C$ 1.00 $T_A = 100^{\circ}C$ 0.75	Amps
Peak Surge Current <sup>5/</sup> (8.3 ms Pulse, Half Sine Wave, Superimposed on $I_O$ , Allow Junction to Reach Equilibrium Between Pulses, per leg)	$I_{FSM}$	20	Amps
Operating and Storage Temperature	$T_{OP}$ & $T_{stg}$	-65 to +175	$^{\circ}C$
Maximum Thermal Resistance	$R_{\theta JC}$	13	$^{\circ}C/W$

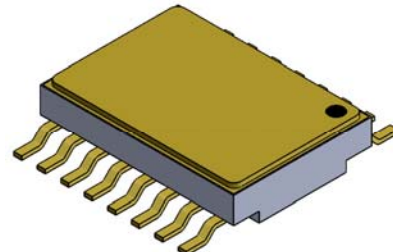
#### NOTES:

- 1/ For ordering information, price, operating curves, and availability- Contact factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ Unless otherwise specified, all maximum ratings/electrical characteristics @25°C.
- 4/ Total current is package dissipation limited to 3A.
- 5/ Surge rating is limited by package.

8 Pin SOIC (SO8)



16 Pin SOIC (SO16)



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

**DATA SHEET #: SH0089B**

**DOC**



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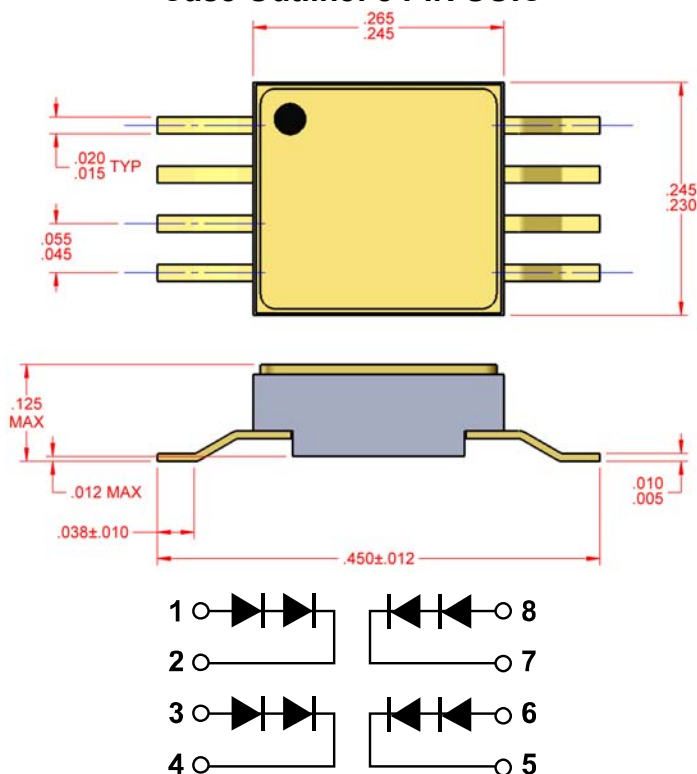
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## ELECTRICAL CHARACTERISTICS<sup>3/</sup>

CHARACTERISTICS	SYMBOL	Typical	MAX	UNIT
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 1 \text{ A}_{DC}$ , 300 $\mu$ sec min pulse) $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$V_F$	1.7 1.5	2.0 -	V
<b>Reverse Leakage Current</b> (Rated $V_R$ , 300 $\mu$ sec min pulse) $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_{R1}$ $I_{R2}$	0.3 25	1 50	$\mu\text{A}$
<b>Junction Capacitance</b> ( $V_R = 5 \text{ V}$ )	$C_j$	10	17	pF
<b>Reverse Recovery Time (Schottky)</b> ( $I_F = 0.5 \text{ A}$ , $I_R = 1.0 \text{ A}$ , $I_{RR} = 0.25 \text{ A}$ , $T_A = 25^\circ\text{C}$ )	$t_{rr}$	20	35	nsec

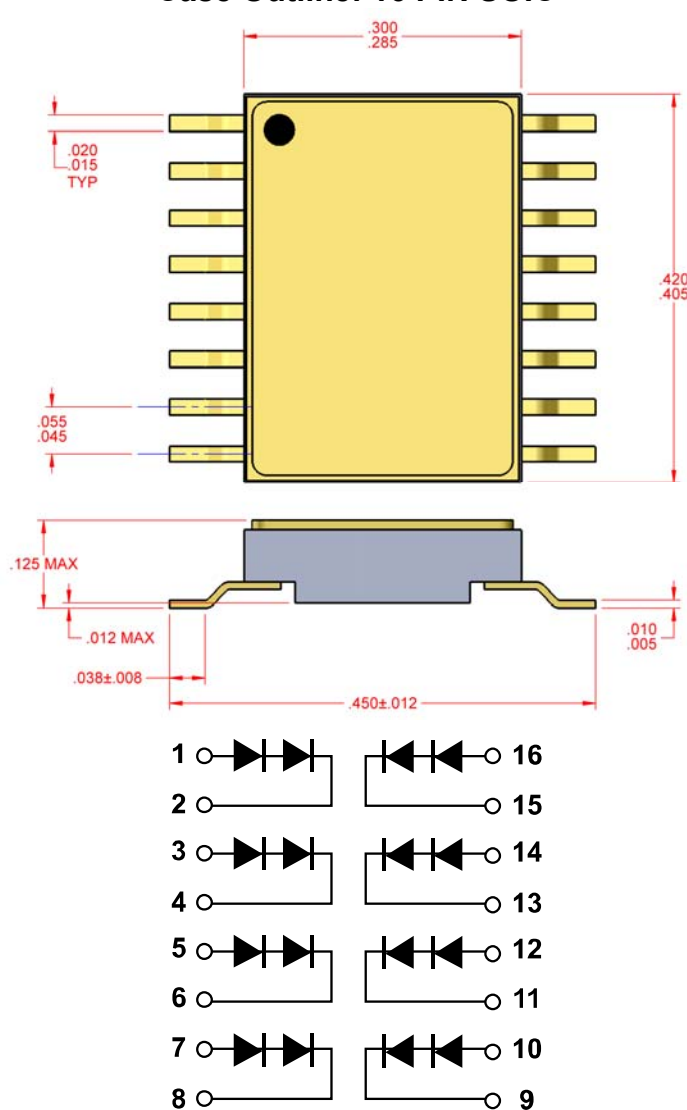
### Case Outline: 8 PIN SOIC



### NOTES:

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- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ Unless otherwise specified, all maximum ratings/electrical characteristics @25°C.
- 4/ Total current is package dissipation limited to 3A.
- 5/ Surge rating is limited by package wirebond.

### Case Outline: 16 PIN SOIC



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