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**UPS840  
 PRELIMINARY**

**SURFACE MOUNT  
 8A SCHOTTKY RECTIFIER  
 POWERMITE® 3 Power Surface Mount Package**

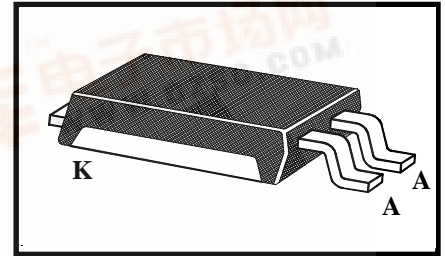
**SCHOTTKY BARRIER  
 RECTIFIER  
 8 AMPERES  
 40 VOLTS**

**Features:**

- Low Profile -- Maximum Height of 1.1 mm
- Footprint Area of 16.51 mm<sup>2</sup>
- Low V<sub>F</sub> Provides Higher Efficiency
- Supplied in 16 mm Tape and Reel -- 6,000 Units per Reel
- Low Thermal Resistance with Direct Thermal Path of Die on Exposed Cathode Heat Sink

**Mechanical Characteristics:**

- Case: Molded Epoxy
- Epoxy Meets UL94, VO at 1/8"
- Weight: 72 mg (approximately)
- Device Marking: S840
- Lead and Mounting Surface Temperature for Soldering Purposes, 260°C Maximum for 10 Seconds



**Maximum Ratings**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
Average Rectified Forward Current (At Rated V <sub>R</sub> , T <sub>C</sub> = 100°C)	I <sub>O</sub>	8	A
Non-Repetitive Peak Surge Current (Non-Repetitive peak surge current with 8A I <sub>O</sub> )	I <sub>FSM</sub>	150	A
Storage Temperature	T <sub>stg</sub> , T <sub>C</sub>	-55 to 150	°C
Operating Temperature	T <sub>J</sub>	-55 to 125	°C
Voltage Rate of Change (Rated V <sub>R</sub> , T <sub>J</sub> = 25°C)	dv/dt	1000	V/μs

**Thermal Characteristics**

Thermal Resistance - Junction-to-Case	R <sub>tjtab</sub>	2.5	°C/W
Thermal Resistance - Junction-to-Ambient	R <sub>tja</sub>	130	

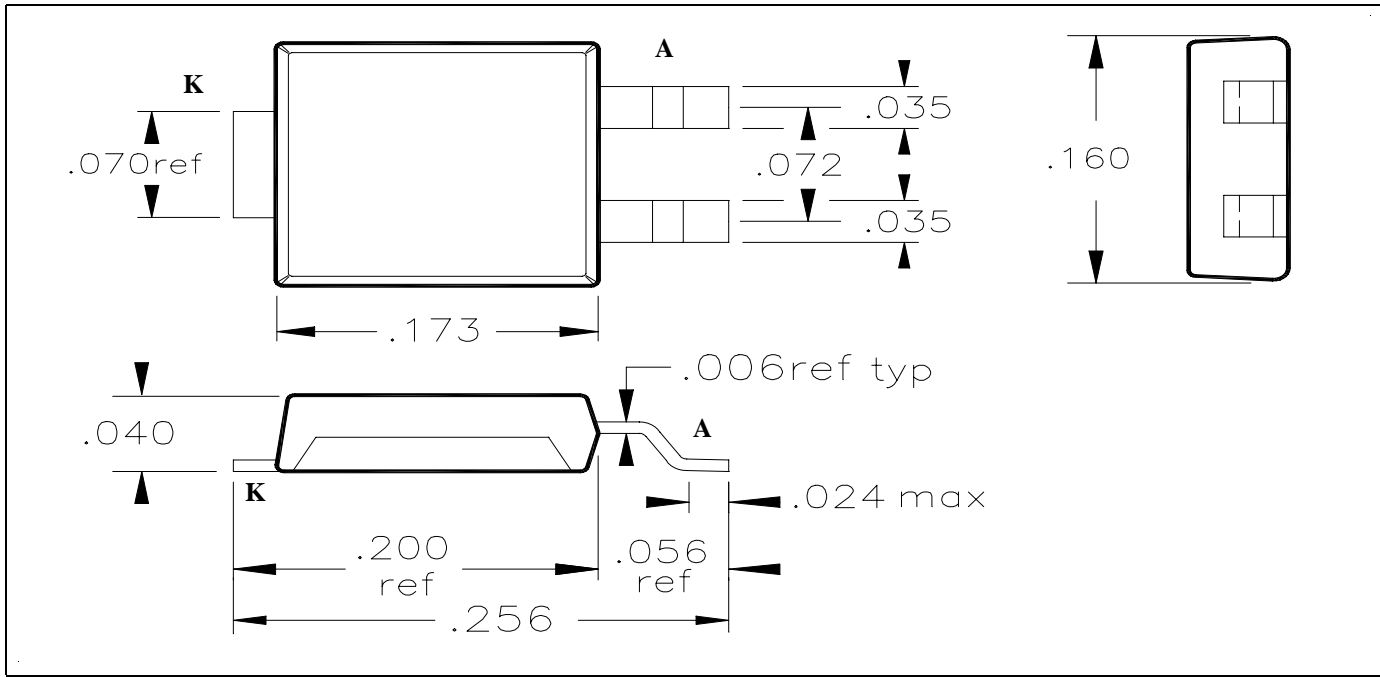
**Electrical Characteristics**

Maximum Instantaneous Forward Voltage (1) (I <sub>F</sub> = 3 A) (I <sub>F</sub> = 8 A) (I <sub>F</sub> = 10 A)	V <sub>F</sub>	T <sub>J</sub> = 25°C	V
		0.37	
		0.45	
Maximum Instantaneous Reverse Current (V <sub>R</sub> = 40 V)	I <sub>R</sub>	T <sub>J</sub> = 25°C	mA
		5	

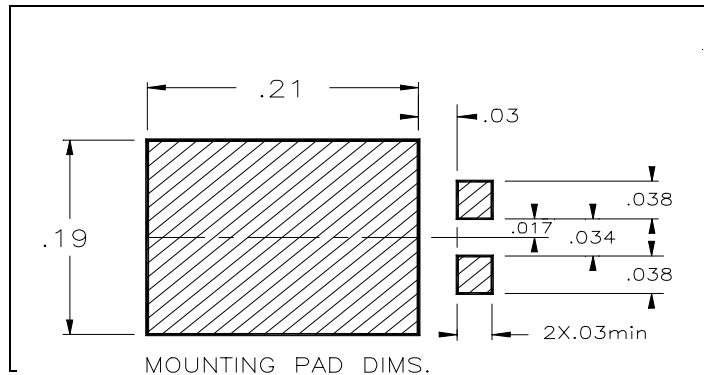
(1) Pulse Test: Pulse Width ≤ 400 μs, Duty Cycle ≤ 2%.



**MECHANICAL DIMENSIONS  
 POWERMITE-3**



**CASE OUTLINE**



MOUNTING PAD DIMS.

**FOOTPRINT**