

**UPS840
PRELIMINARY**

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

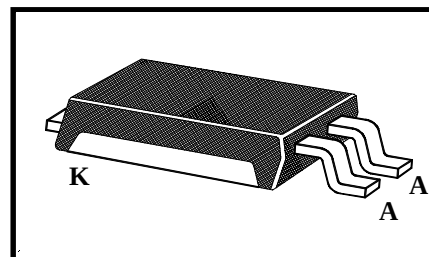
Features:

- Low Profile -- Maximum Height of 1.1 mm
- Footprint Area of 16.51 mm²
- Low V_F 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

**SCHOTTKY BARRIER
RECTIFIER
8 AMPERES
40 VOLTS**



Maximum Ratings

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Average Rectified Forward Current (At Rated V_R , $T_C = 100^\circ\text{C}$)	I_O	8	A
Non-Repetitive Peak Surge Current (Non-Repetitive peak surge current with 8A I_O)	I_{FSM}	150	A
Storage Temperature	T_{stg}, T_C	-55 to 150	°C
Operating Temperature	T_J	-55 to 125	°C
Voltage Rate of Change (Rated V_R , $T_J = 25^\circ\text{C}$)	dv/dt	1000	V/ μs

Thermal Characteristics

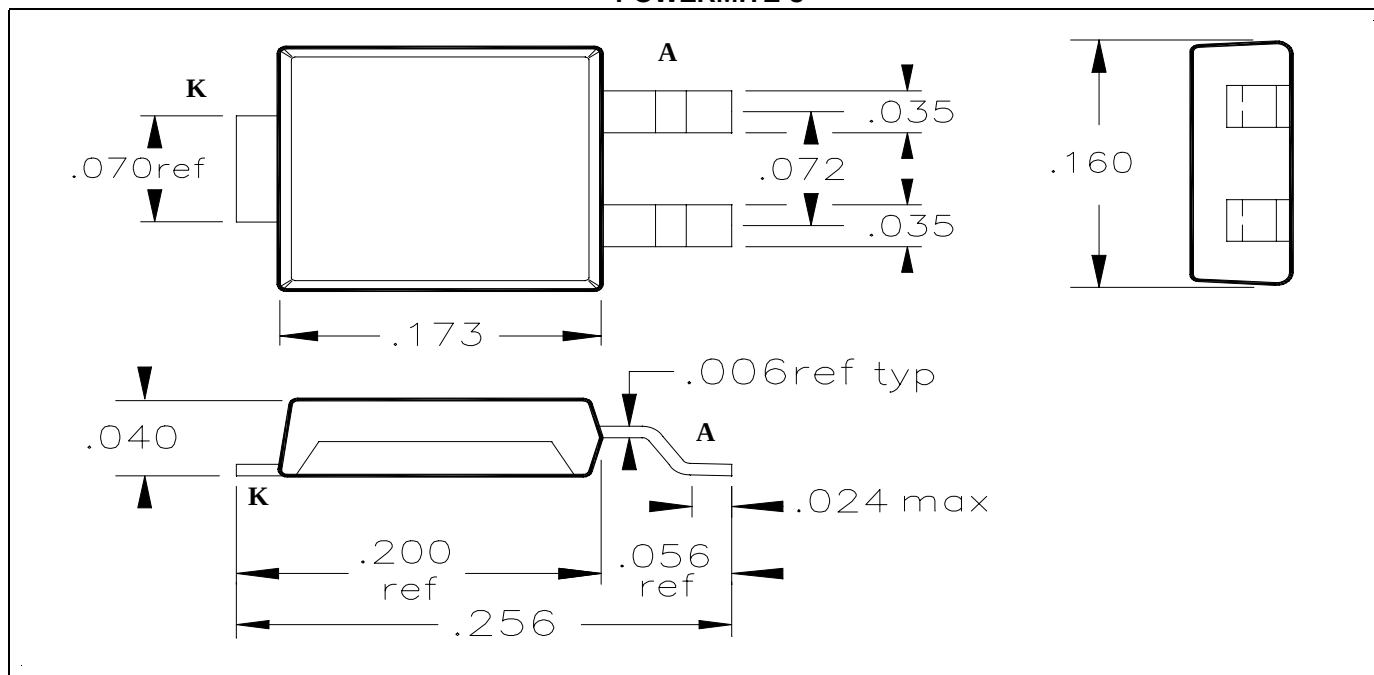
Thermal Resistance - Junction-to-Case	$R_{\theta j\theta ab}$	2.5	°C/W
Thermal Resistance - Junction-to-Ambient	$R_{\theta ja}$	130	

Electrical Characteristics

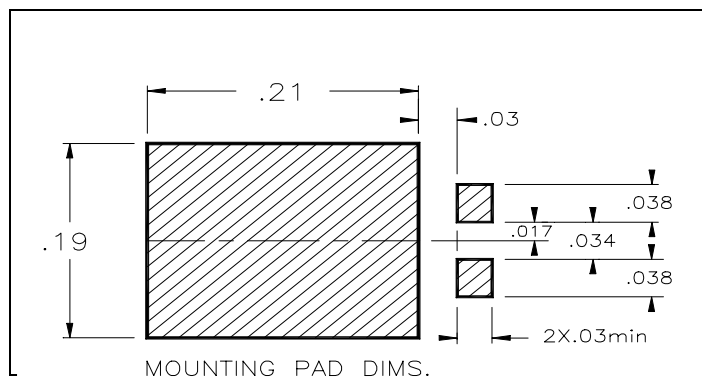
Maximum Instantaneous Forward Voltage (1) ($I_F = 3\text{ A}$) ($I_F = 8\text{ A}$) ($I_F = 10\text{ A}$)	V_F	$T_J = 25^\circ\text{C}$ 0.37 0.45 0.49	V
Maximum Instantaneous Reverse Current ($V_R = 40\text{ V}$)	I_R	$T_J = 25^\circ\text{C}$ 5	mA

(1) Pulse Test: Pulse Width $\leq 400\text{ }\mu\text{s}$, Duty Cycle $\leq 2\%$.

MECHANICAL DIMENSIONS
POWERMITE-3



CASE OUTLINE



FOOTPRINT