

UFP560

High Current Density Surface Mount Ultrafast High Voltage Rectifier

Features

- Very low profile - typical height of 1.1 mm
- Oxide planar chip junction
- Ultrafast recovery time
- Soft recovery characteristics
- Low switching losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- RoHS compliant package

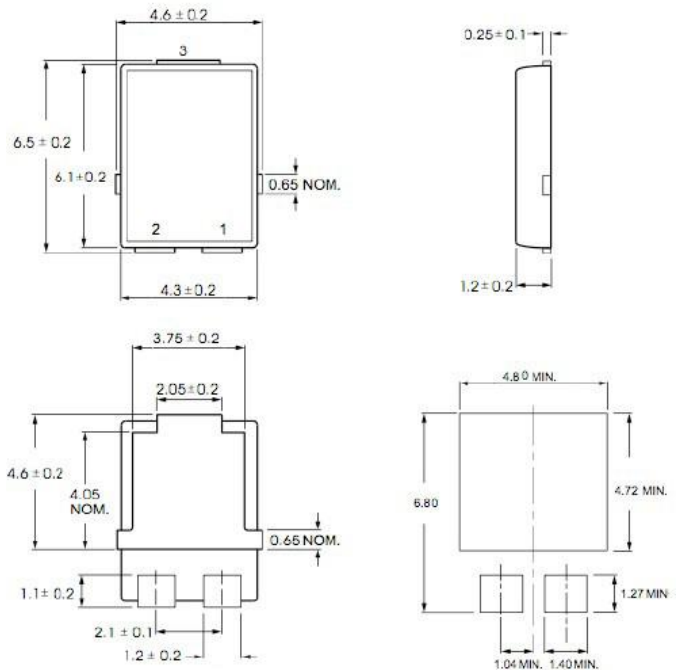
Mechanical Data

Case: Conform to JEDEC TO-277A

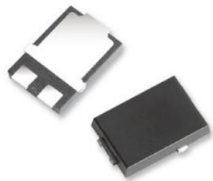
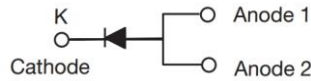
Molding compound meets UL 94 V-0 flammability

Packing & Order Information

3,000/Reel



Graphic symbol



**RoHS
COMPLIANT**

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)

Parameter	Symbol	UFP560	Unit
Maximum repetitive peak reverse voltage	VRRM	600	V
Working peak reverse Voltage	VRWM	600	V
Maximum DC blocking Voltage	VDC	600	V
Maximum average forward rectified current Total device	IF(AV)	5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	80	A
Operating junction temperature range	TJ	-55 to +175	°C
Storage temperature range	TSTG	-55 to +175	°C

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Note:

- (1) Mounted on 30 mm x 30 mm Al P.C.B. with 50 mm x 25 mm x 100 mm fin heat sink
- (2) Free air, mounted on recommended copper pad area

Electrical characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=5A, Tj=25°C at IF=5A, Tj=125°C	VF	2.3 1.35	2.5	V
Maximum reverse current per leg Tj=25°C	IR	20		u'A
at working peak reverse voltage Tj=125°C		500		u'A
Typical forward recovery time IF=1A, VR=30V, dIF/dt=100A/uS.	Trr	30		ns
IF=0.5A, IR=1A, Irr=0.25A.		25		ns

Thermal characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Typical thermal resistance	RθJA	90	°C/W
	Rthjl	5	

Notes:

- (1) Pulse test: 300 μs pulse width, 1 % duty cycle
- (2) Pulse test: Pulse width ≤ 40 ms

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Ultrafast High Voltage Rectifier

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