Preliminary SS34MA/SS34D

SWITCHMODE SCHOTTKY RECTIFIER

Description

Packaged in SMA, and low profile 2010, this device is intended for use in low and medium voltage operation, high frequency inverters, freewheeling and polarity protection applications where low switching losses are required.

Features

- Very small conduction losses
- Low forward voltage drop/ reverse current losses
- Negligible switching losses
- Extremely fast switching
- Meets MSL level 1, per J-STD-020
- Solder dip 260 °C max. 10 s, per JESD 22-A111
- RoHS Compliant package

Application

- RoHS Compliant package
- Switching Mode Power Supply Applications
- Portable Equipment Battery Applications
- DC-DC Converter Applications

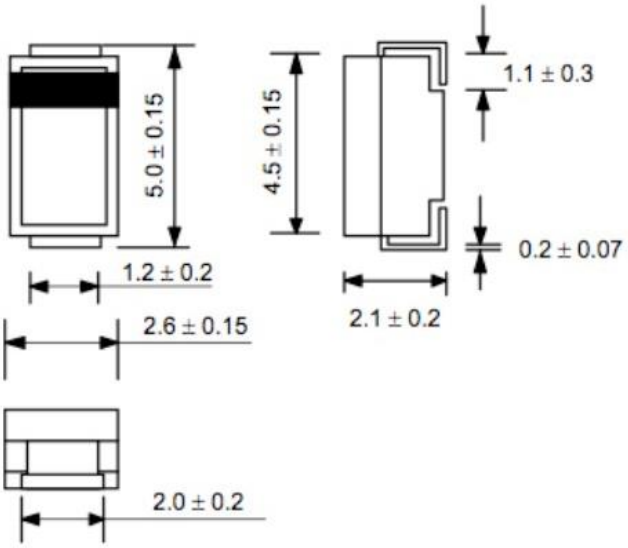
Mechanical Data

- Case:
- SMA Conform to JEDEC DO214AC
- 2010: Packed with FRP substrate and epoxy under filled
- Molding compound meets UL 94 V-0 flammability
- Weight: SMA: 0.065 gram; 2010: 0.02 gram

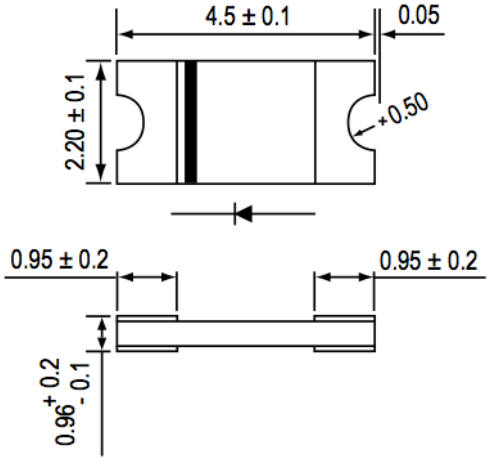
Packing & Order Information

5,000/Reel

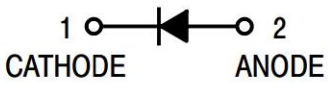
SMA



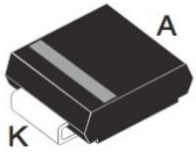
2010



Graphic symbol



SMA



2010

RoHS
COMPLIANT

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SWITCHMODE SCHOTTKY RECTIFIER

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	SS34MA	SS34DA	Unit
Maximum repetitive peak reverse voltage	VRRM	40		V
Working peak reverse voltage	VRWM	28		V
Maximum DC blocking voltage	VDC	40		V
Maximum average forward rectified current	IF(AV)	3		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	80		A
Non-repetitive avalanche energy at 25 °C IAS = 2 A per diode	EAS	20		m'J
Operating junction temperature range	TJ	-55 to +150		°C
Storage temperature range	TSTG	-55 to +150		°C

Notes:

Mounted on 2" Square PC Board with 1" Square Total Pad Size, PC Board FR4.

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

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=3A, Tj=25°C	VF	0.495	0.53	V
at IF=5A, Tj=25°C		0.58		
at IF=3A, Tj=125°C			0.45	
at IF=5A, Tj=125°C			0.55	
Maximum reverse current Tj=25°C	IR	50		u'A
at working peak reverse voltage Tj=125°C		20		m'A

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

Parameter		Value		Unit
	Symbol	SS34MA	SS34DA	
Typical thermal resistance	RθJL	15	24	°C/W
	Rthja	80	86	

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

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SWITCHMODE SCHOTTKY RECTIFIER

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