

SWITCHMODE SCHOTTKY RECTIFIER SS34MA/ SS34DA

Switching Mode Power Supply Applications

Portable Equipment Battery Applications

DC-DC Converter Applications

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

Compliant to RoHS directive 2002/95/EC and in accordance to
WEEE 2002/96/EC

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: 0.064 gram; 2010: 0.02 gram

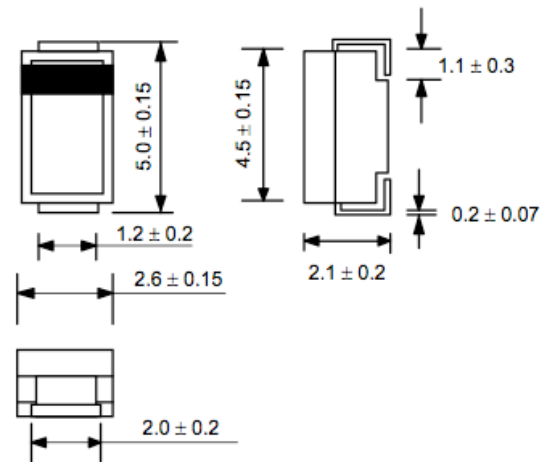
Description

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.

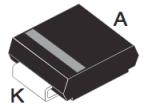
Main product characteristics

IF(AV)	3A
VRRM	40 V
Tj (max)	150° C
VF (max)	0.53 V
IR Typical	10uA

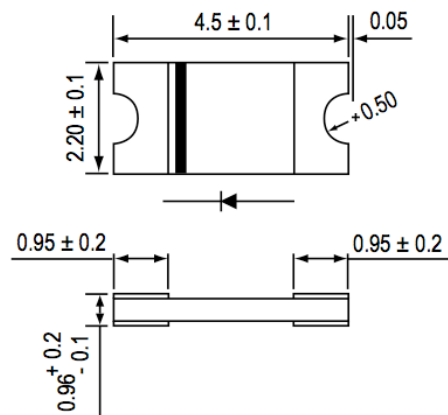
SMA (DO-214AC)



Dimensions in millimeters



CASE:2010



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (T_c=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		mJ
Operating junction temperature range	TJ	-50 to +150		°C
Storage temperature range	TSTG	-50 to +150		°C

NOTE:

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

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

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=3A, T _j =25°C at IF=5A, T _j =25°C at IF=3A, T _j =125°C at IF=5A, T _j =125°C	VF	0.495 0.58	0.53 0.45 0.55	V
Maximum reverse current at T _j =25°C	IR	50		u'A
at working peak reverse voltage T _j =125°C		20		m'A

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

Parameter		Value		Unit
Typical thermal resistance	Symbol	SS34MA	SS34DA	°C/W
	R _{θJL}	15	24	
	R _{thja}	80	86	

Notes:

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