New Product

Vishay Semiconductors
formerly General Semiconductor

High Voltage Surface Mount Schottky Barrier Rectifiers

Reverse Voltage 90 to 100V
Forward Current 2.0A

DO-214AA (SMB)

Mounting Pad Layout

Mechanical Data

Case: JEDEC DO-214AA molded plastic body
Terminals: Solder plated, solderable per MIL-STD750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.003oz., 0.093g

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	SS2H9	SS2H10	Unit
Device marking code		MS9	MS10	
Maximum repetitive peak reverse voltage	V_{RRM}	90	100	V
Working peak reverse voltage	V_{RWM}	90	100	V
Maximum DC blocking voltage	V_{DC}	90	100	V
Maximum average forward rectified current at: T_L = 130°C	$I_{F(AV)}$	2.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	75		A
Peak repetitive reverse surge current at t_p = 2.0µs, 1KHz	I_{RRM}	1.0		A
Critical rate of rise of reverse voltage	dv/dt	10,000		V/µs
Maximum thermal resistance junction to lead T_L = 25°C	$R_{\theta JL}$	25		°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–65 to +175		°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Maximum instantaneous forward voltage at (Note 1):	I_F = 2.0A, T_J = 25°C I_F = 2.0A, T_J = 125°C	V_F	0.79 0.65	V
Maximum DC reverse current at rated DC blocking voltage (Note 1)	T_J = 25°C T_J = 125°C	I_R	10 4	µA mA

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

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

Fig. 2 – Typical Instantaneous Forward Characteristics

Fig. 3 – Typical Reverse Characteristics

Fig. 4 – Typical Junction Capacitance

Fig. 5 – Typical Transient Thermal Impedance