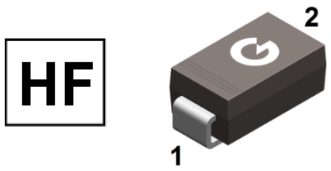
Schottky Barrier Rectifier

SS28A - SS210A

Features

- Metal silicon junction, majority carrier conduction
- High forward surge current capability
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C @ 10s
- Robust guarding for over voltage protection
- RoHS compliant with Halogen-free



Mechanical Data

- Case: SMA molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads; solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	SS28A	SS29A	SS210A	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	80	90	100	V
RMS Reverse Voltage	V_{RMS}	56	63	70	V
DC Blocking Voltage	V_{DC}	80	90	100	V
Maximum Average Forward Output Current	I_{F_AV}	2.0			A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I_{FSM}	50			A
I^2t Rating for Fusing	I^2t	10			A^2s

Thermal Characteristics

Parameter	Symbol	SS28A	SS29A	SS210A	Unit
Typical Thermal Resistance *1	$R_{\Theta JA}$	70			°C/W
	$R_{\Theta JC}$	25			
	$R_{\Theta JL}$	30			
Operating Junction Temperature Range	T_J	-55 ~ +150			°C
Storage Temperature Range	T_{STG}	-55 ~ +150			°C

Schottky Barrier Rectifier SS28A - SS210A

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R = 100μA, SS28A	80	-	-	V
		I_R = 100μA, SS29A	90	-	-	V
		I_R = 100μA, SS210A	100	-	-	V
Forward Voltage *2	V_F	I_F = 2A	-	-	0.8	V
Maximum Peak Reverse Current *3	I_R	Rated V_R, T_J = 25°C	-	-	30	μA
		Rated V_R, T_J = 100°C	-	-	1	mA
Diode capacitance	C_J	V_R = 4V, f = 1MHz	-	69	-	pF

Notes:

1. The data tested by surface mounted on p.c.b. with 10 mm x 20 mm x 0.1 mm copper pad area
2. The data tested by pulsed, pulse width ≤ 300μs, duty cycle ≤ 1%
3. The data tested by pulsed, pulse width ≤ 40ms

Schottky Barrier Rectifier SS28A - SS210A

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

Fig.1 Forward Current Derating Curve

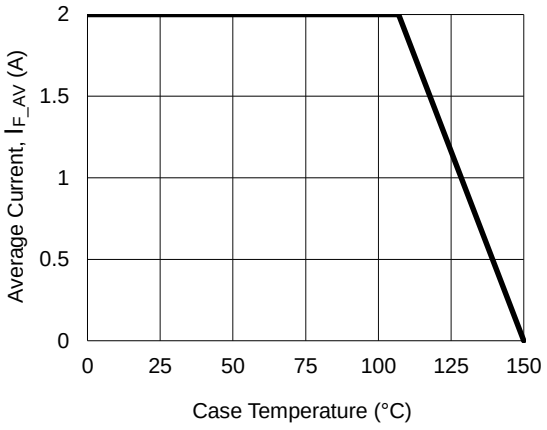


Fig.2 Surge Current Derating Curve

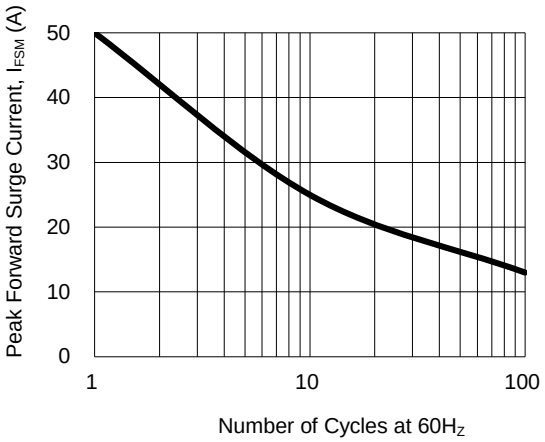


Fig.3 Typical Forward Voltage Characteristics

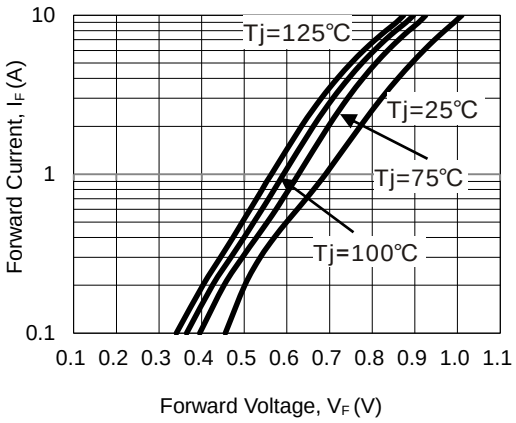


Fig.4 Typical Reverse Characteristics

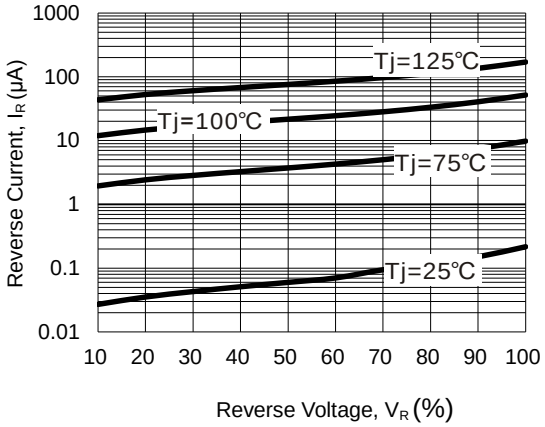
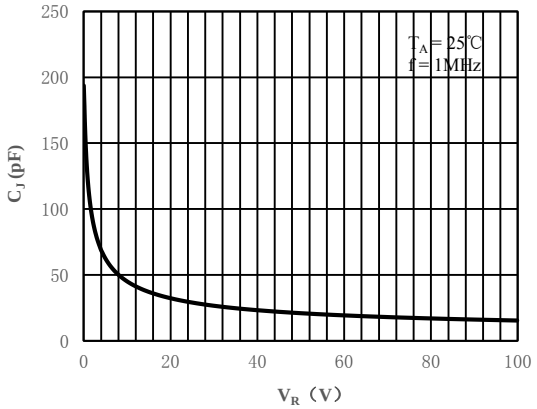
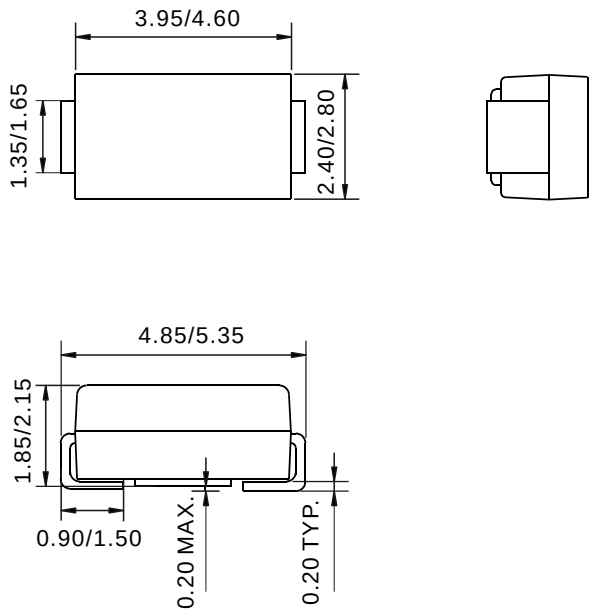


Fig.5 Capacitance vs. Reverse Voltage

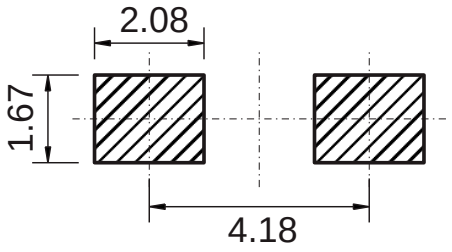


Schottky Barrier Rectifier SS28A - SS210A

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
SS28A	SS28A	SMA	5000 pcs / Tape & Reel
SS29A	SS29A	SMA	5000 pcs / Tape & Reel
SS210A	SS210A	SMA	5000 pcs / Tape & Reel