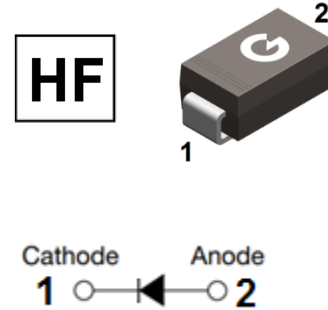


Schottky Barrier Rectifier

TSS28A - TSS210A

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
- Qualified to AEC-Q101 Standards



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	TSS28A	TSS29A	TSS210A	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 ² t Rating for Fusing	I ² t	10			A ² s

Thermal Characteristics

Parameter	Symbol	TSS28A	TSS29A	TSS210A	Unit
Typical Thermal Resistance *1	R _{θJA}	70			°C/W
	R _{θJC}	25			
	R _{θJL}	30			
Operating Junction Temperature Range	T _J	-55 ~ +150			°C
Storage Temperature Range	T _{STG}	-55 ~ +150			°C

Schottky Barrier Rectifier

TSS28A - TSS210A

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$, TSS28A	80	-	-	V
		$I_R = 100\mu\text{A}$, TSS29A	90	-	-	V
		$I_R = 100\mu\text{A}$, TSS210A	100	-	-	V
Forward Voltage *2	V_F	$I_F = 2\text{A}$	-	-	0.8	V
Maximum Peak Reverse Current *3	I_R	Rated V_R , $T_J = 25^\circ\text{C}$	-	-	30	μA
		Rated V_R , $T_J = 100^\circ\text{C}$	-	-	1	mA
Diode capacitance	C_J	$V_R = 4\text{V}$, $f = 1\text{MHz}$	-	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 $\leq 300\mu\text{s}$, duty cycle $\leq 1\%$
3. The data tested by pulsed, pulse width $\leq 40\text{ms}$

Schottky Barrier Rectifier

TSS28A - TSS210A

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

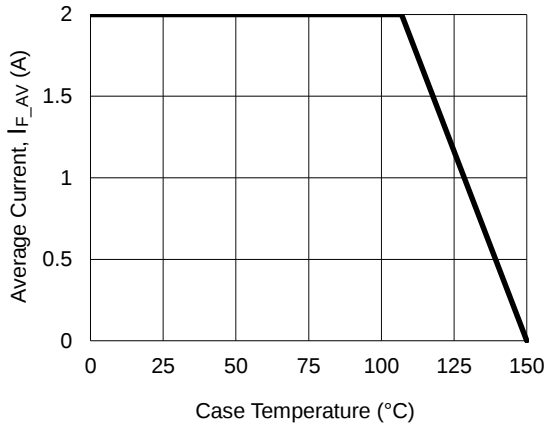


Fig.2 Surge Current Derating Curve

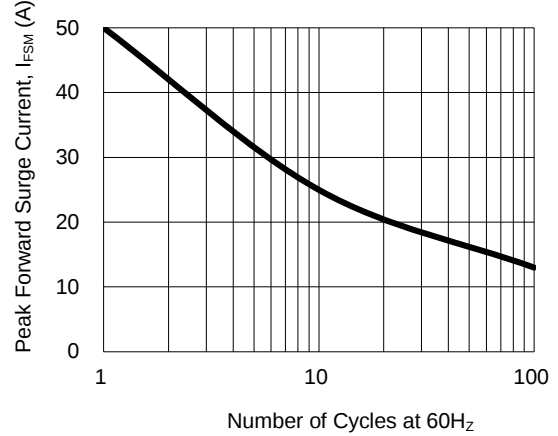


Fig.3 Typical Forward Voltage Characteristics

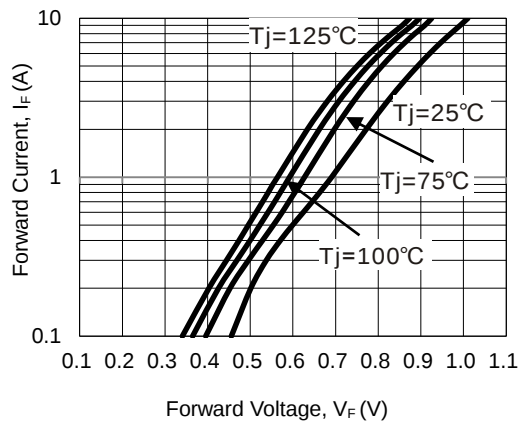


Fig.4 Typical Reverse Characteristics

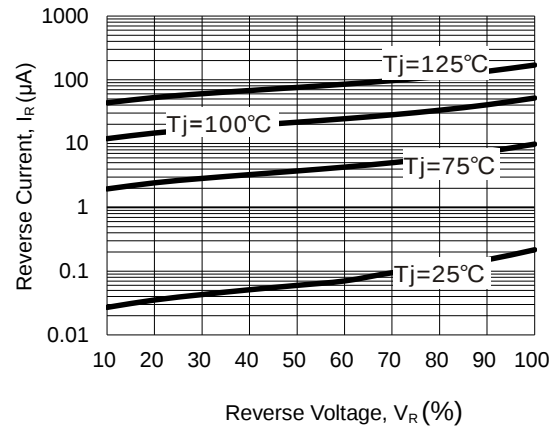
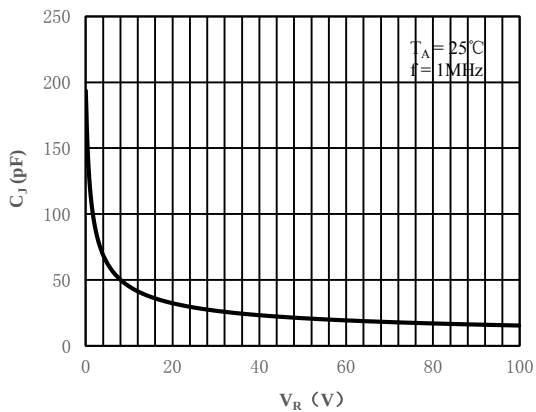


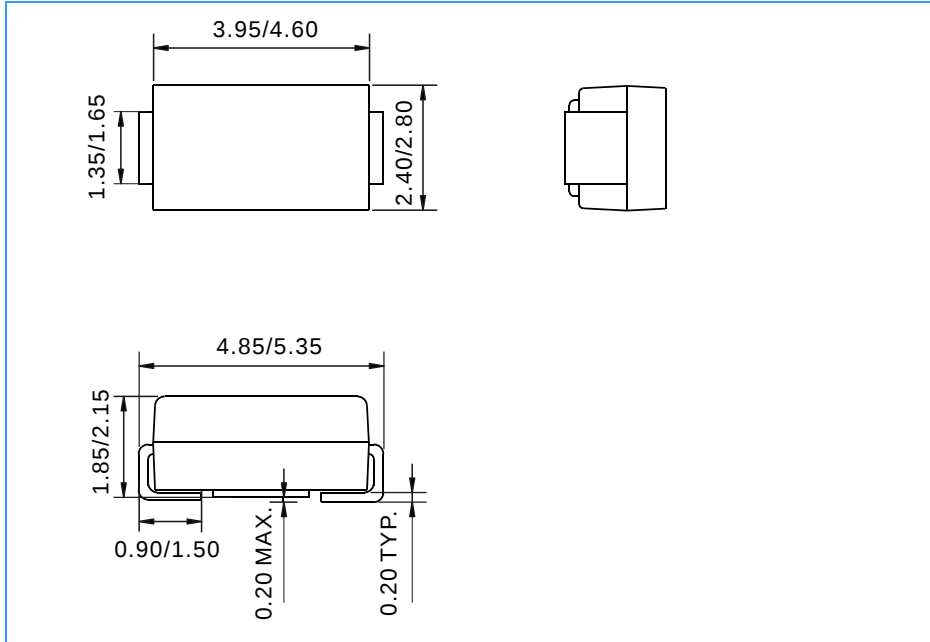
Fig.5 Capacitance vs. Reverse Voltage



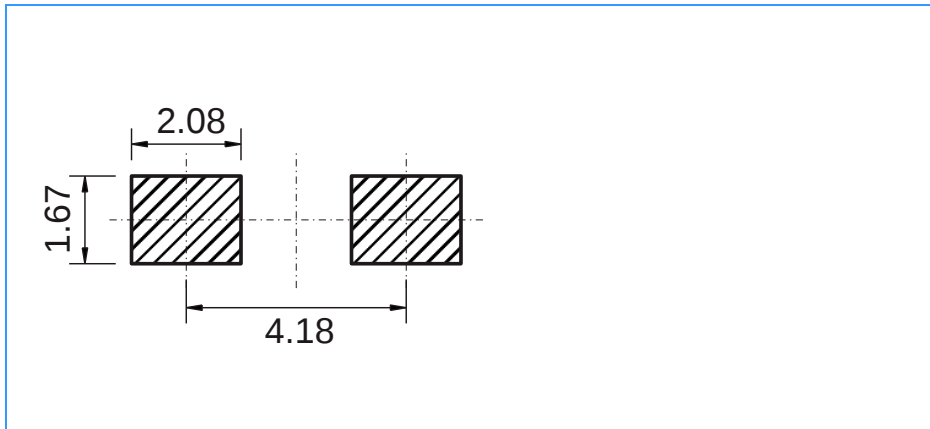
Schottky Barrier Rectifier

TSS28A - TSS210A

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
TSS28A	SS28A	SMA	5000 pcs / Tape & Reel
TSS29A	SS29A	SMA	5000 pcs / Tape & Reel
TSS210A	SS210A	SMA	5000 pcs / Tape & Reel