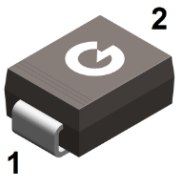
Schottky Barrier Rectifier
SS3150B-SS3200B

Features

HF

- 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



SMB

Mechanical Data

- Case: SMB
- Molding compound: UL flammability classification rating 94-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
SS3150B	SMB	3000 pcs / Tape & Reel	SS3CB
SS3200B	SMB	3000 pcs / Tape & Reel	SS3DB

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

Parameter	Symbol	SS3150B	SS3200B	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	150	200	V
RMS Reverse Voltage	V_{RMS}	105	140	V
DC Blocking Voltage	V_{DC}	150	200	V
Average Forward Output Current	$I_{F(AV)}$	3.0		A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave	I_{FSM}	80		A

Thermal Characteristics

Parameter	Symbol	SS3150B	SS3200B	Unit
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	65		°C/W
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	25		°C/W
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	23		°C/W
Operating Junction Temperature Range	T_J	-55 ~ +175		°C
Storage Temperature Range	T_{STG}	-55 ~ +175		°C

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

Parameter	Symbol	Test Conditions		Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R = 100μA, SS3150B		150	-	-	V
		I_R = 100μA, SS3200B		200	-	-	V
Instantaneous Forward Voltage*1	V_F	I_F = 3.0A	@ T_A = 25°C	-	-	0.85	V
Reverse Current*2	I_R	Rated V_R	@ T_J = 25°C	-	-	30	μA
			@ T_J = 100°C	-	-	5	mA

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

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

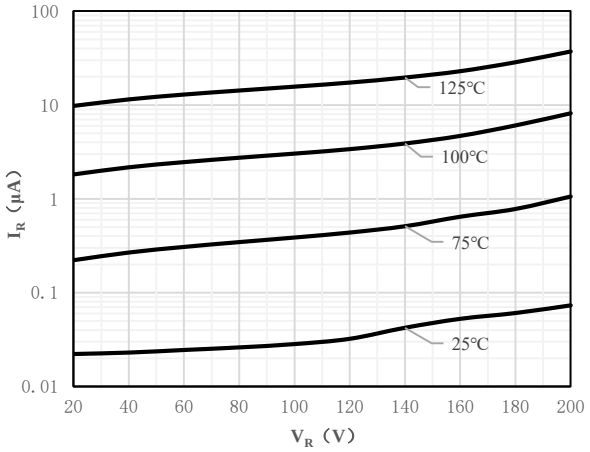


Fig 1 Typical Reverse Characteristic

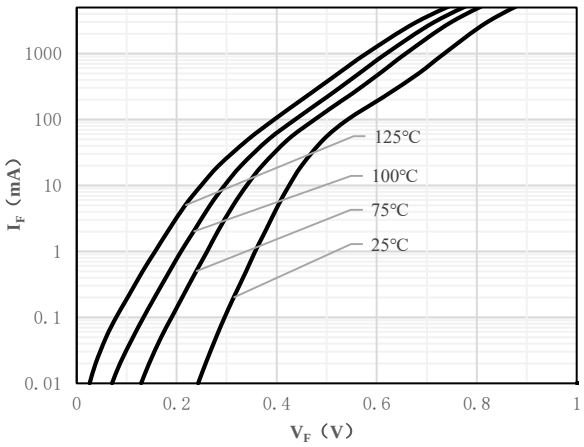


Fig 2 Typical Forward Characteristics

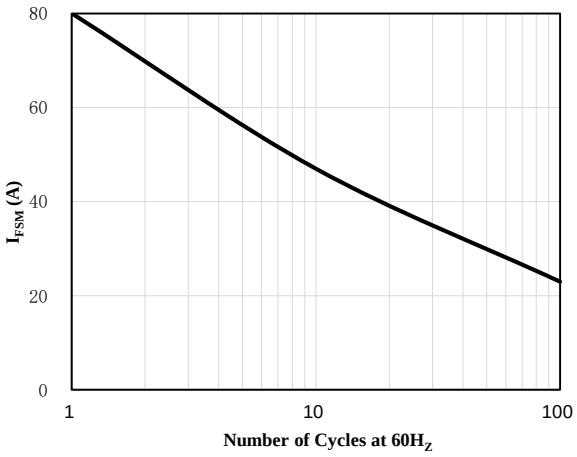


Fig 3 Surge Current Derating Curve

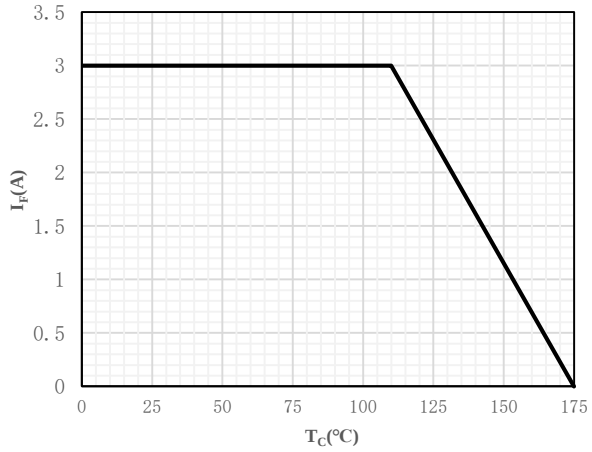


Fig 4 Forward Current Derating Curve

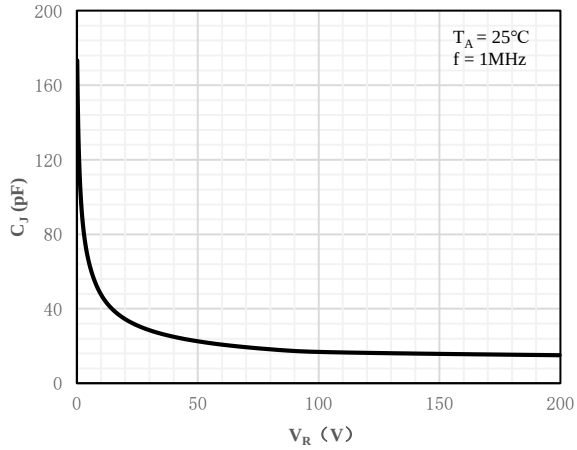
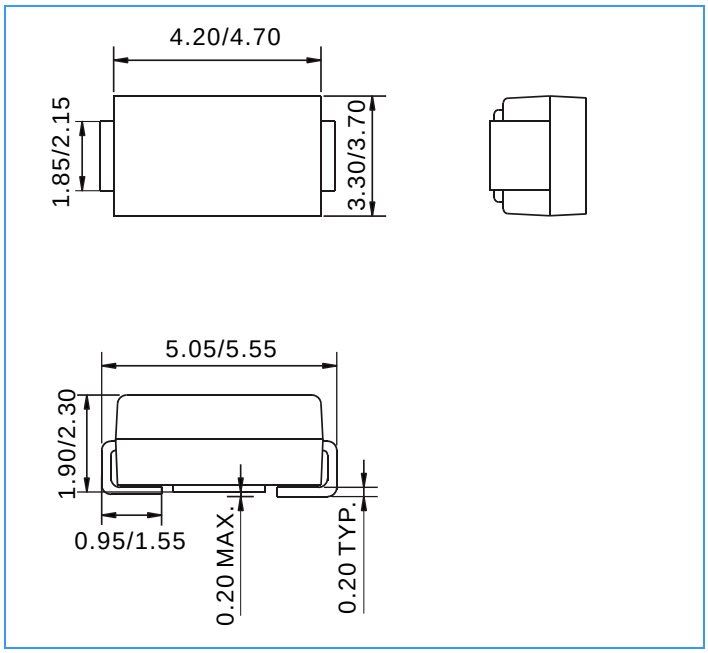


Fig 5 Capacitance vs. Reverse Voltage

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)