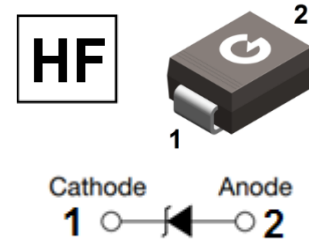


Surface Mount Rectifiers

TS3DB - TS3MB

Features

- For surface mounted applications
- Ideal for automated placement
- Low forward voltage drop
- High forward surge current capability
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards



Mechanical Data

- Case: SMB molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL- STD-202, Method 208
- Polarity: Color band denotes cathode end

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

Parameter	Symbol	TS3DB	TS3GB	TS3JB	TS3KB	TS3MB	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	200	400	600	800	1000	V
RMS Reverse Voltage	V _{RMS}	140	280	420	560	700	V
DC Blocking Voltage	V _{DC}	200	400	600	800	1000	V
Maximum Average Forward Output Current	I _{F_AV}	3.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I _{FSM}	100					A

Thermal Characteristics

Parameter	Symbol	TS3DB	TS3GB	TS3JB	TS3KB	TS3MB	Unit
Typical Thermal Resistance *1	R _{ΘJA}	60					°C/W
	R _{ΘJC}	23					
	R _{ΘJL}	25					
Operating Junction Temperature Range	T _J	-55 ~ +150					°C
Storage Temperature Range	T _{STG}	-55 ~ +150					°C

Note *1: Device mounted on p.c.b. with 10 mm x 20 mm x 0.1mm copper pad area

Surface Mount Rectifiers

TS3DB - TS3MB

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

Parameter	Symbol	Test Conditions		Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 2\mu\text{A}$, TS3DB		200	-	-	V
		$I_R = 2\mu\text{A}$, TS3GB		400	-	-	V
		$I_R = 2\mu\text{A}$, TS3JB		600	-	-	V
		$I_R = 2\mu\text{A}$, TS3KB		800	-	-	V
		$I_R = 2\mu\text{A}$, TS3MB		1000	-	-	V
Maximum Instantaneous Forward Voltage	V_F	$I_F = 3.0\text{A}$		-	-	1.15	V
Maximum Reverse Current	I_R	Rated V_R	@ $T_A = 25^\circ\text{C}$	-	-	10	μA
			@ $T_A = 125^\circ\text{C}$	-	-	100	

Surface Mount Rectifiers

TS3DB - TS3MB

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

Fig.1 Forward Current Derating Curve

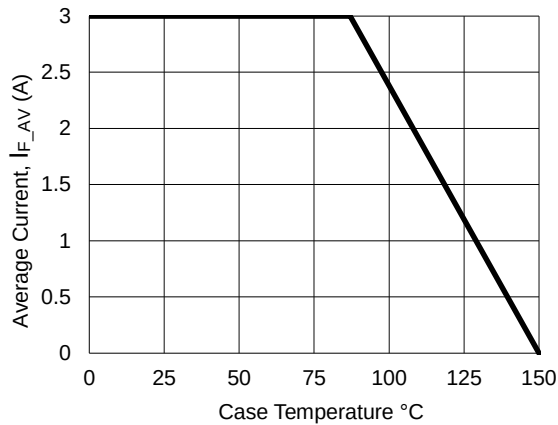


Fig.2 Surge Current Derating Curve

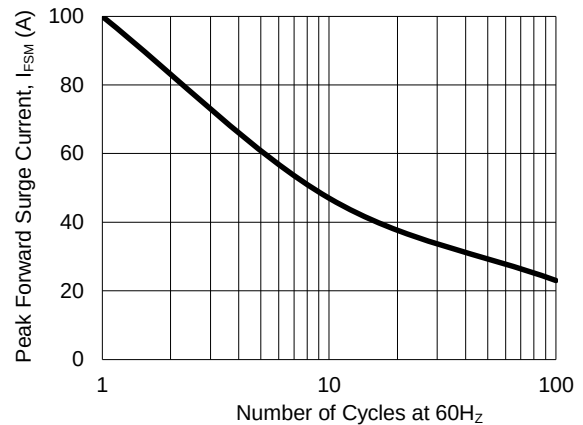


Fig.3 Typical Forward Voltage Characteristics

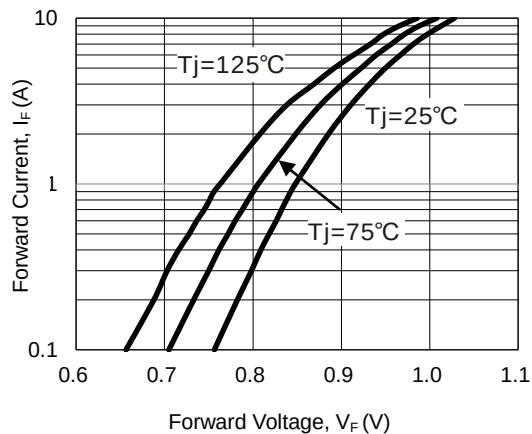
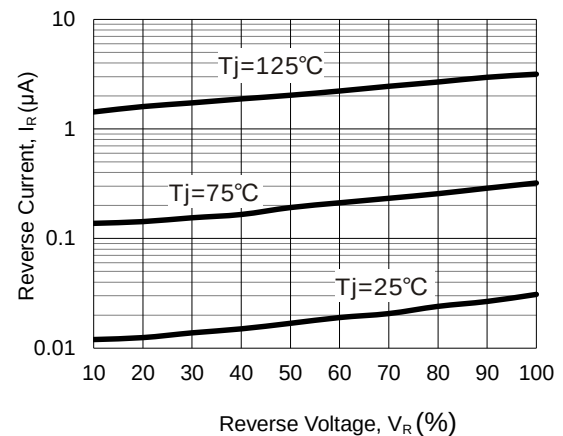


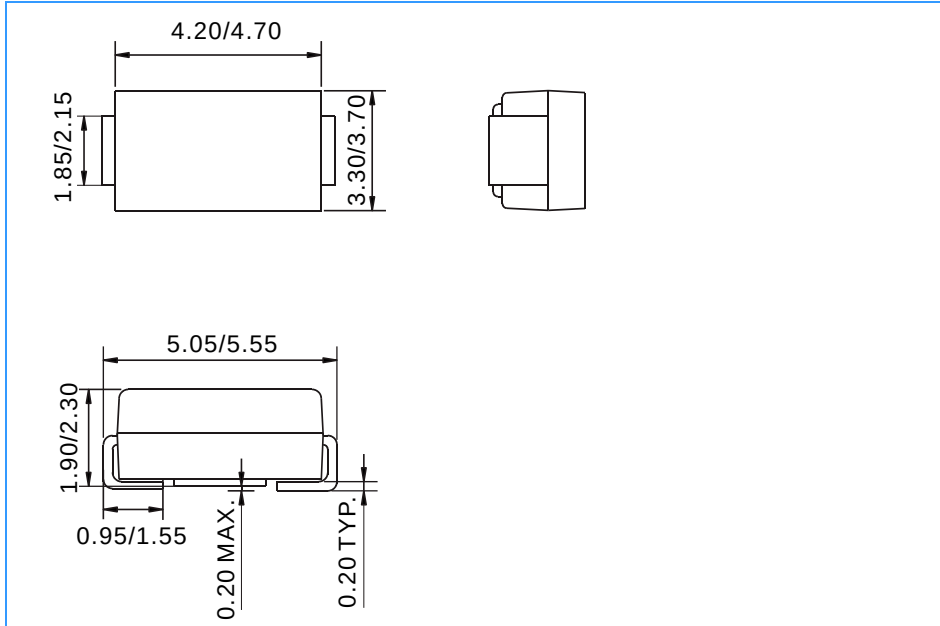
Fig.4 Typical Reverse Characteristics



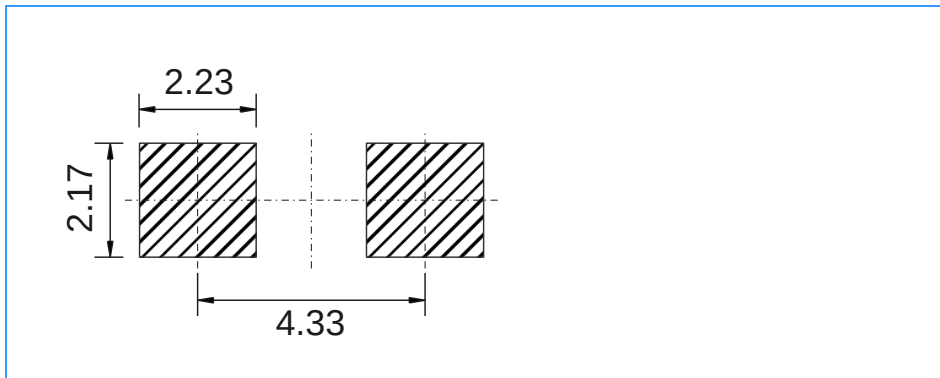
Surface Mount Rectifiers

TS3DB - TS3MB

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
TS3DB	S3DB	SMB	3000 pcs / Tape & Reel
TS3GB	S3GB	SMB	3000 pcs / Tape & Reel
TS3JB	S3JB	SMB	3000 pcs / Tape & Reel
TS3KB	S3KB	SMB	3000 pcs / Tape & Reel
TS3MB	S3MB	SMB	3000 pcs / Tape & Reel