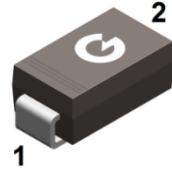


Features

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

HF



SMA

Mechanical Data

- Case: SMA
- 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
TS2BA	SMA	5000 pcs / Tape & Reel	S2BA
TS2DA	SMA	5000 pcs / Tape & Reel	S2DA
TS2GA	SMA	5000 pcs / Tape & Reel	S2GA
TS2JA	SMA	5000 pcs / Tape & Reel	S2JA
TS2KA	SMA	5000 pcs / Tape & Reel	S2KA
TS2MA	SMA	5000 pcs / Tape & Reel	S2MA

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

Parameter	Symbol	TS2BA	TS2DA	TS2GA	TS2JA	TS2KA	TS2MA	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{RMS}	70	140	280	420	560	700	V
DC Blocking Voltage	V _{DC}	100	200	400	600	800	1000	V
Average Forward Output Current	I _{F(AV)}	2.0						A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave	I _{FSM}	50						A

Thermal Characteristics

Parameter	Symbol	TS2BA	TS2DA	TS2GA	TS2JA	TS2KA	TS2MA	Unit
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	70						$^{\circ}\text{C/W}$
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	25						$^{\circ}\text{C/W}$
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	30						$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-55 ~ +150						$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150						$^{\circ}\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 2\mu\text{A}$, TS2BA	100	-	-	V
		$I_R = 2\mu\text{A}$, TS2DA	200	-	-	V
		$I_R = 2\mu\text{A}$, TS2GA	400	-	-	V
		$I_R = 2\mu\text{A}$, TS2JA	600	-	-	V
		$I_R = 2\mu\text{A}$, TS2KA	800	-	-	V
		$I_R = 2\mu\text{A}$, TS2MA	1000	-	-	V
Forward Voltage *2	V_F	$I_F = 2\text{A}$	-	-	1.15	V
Maximum Peak Reverse Current *3	I_R	Rated V_R , $T_J = 25^{\circ}\text{C}$	-	-	5	μA
		Rated V_R , $T_J = 125^{\circ}\text{C}$	-	-	125	μA

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 $\leq 40\text{ms}$

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

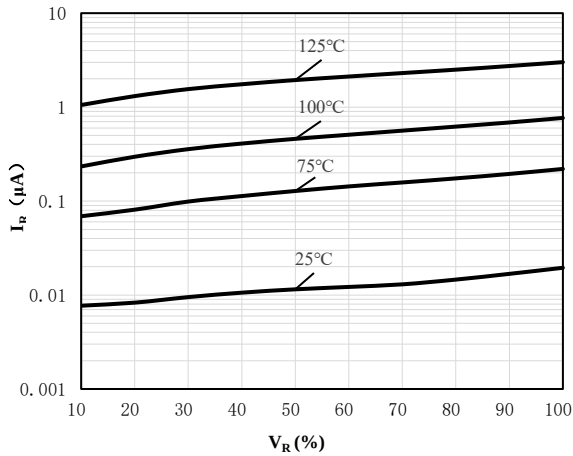


Fig 1 Typical Reverse Characteristic

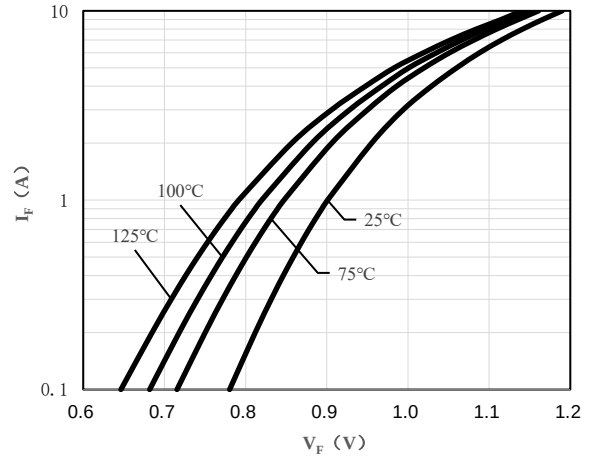


Fig 2 Typical Forward Characteristics

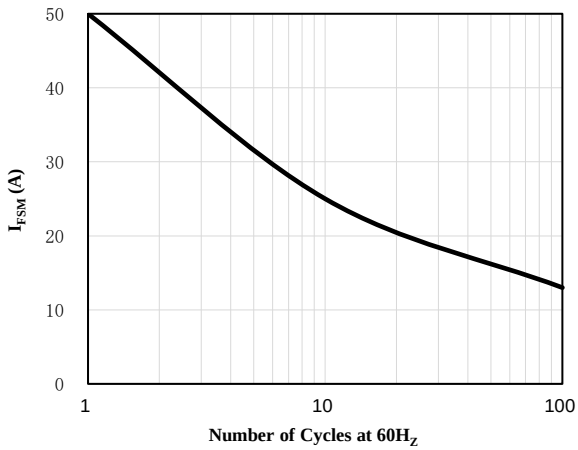


Fig 3 Surge Current Derating Curve

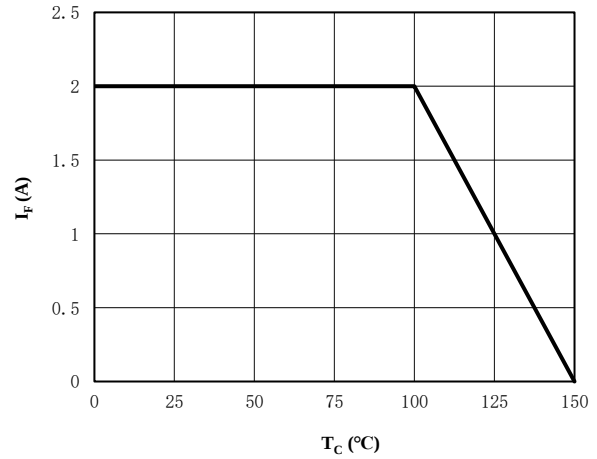
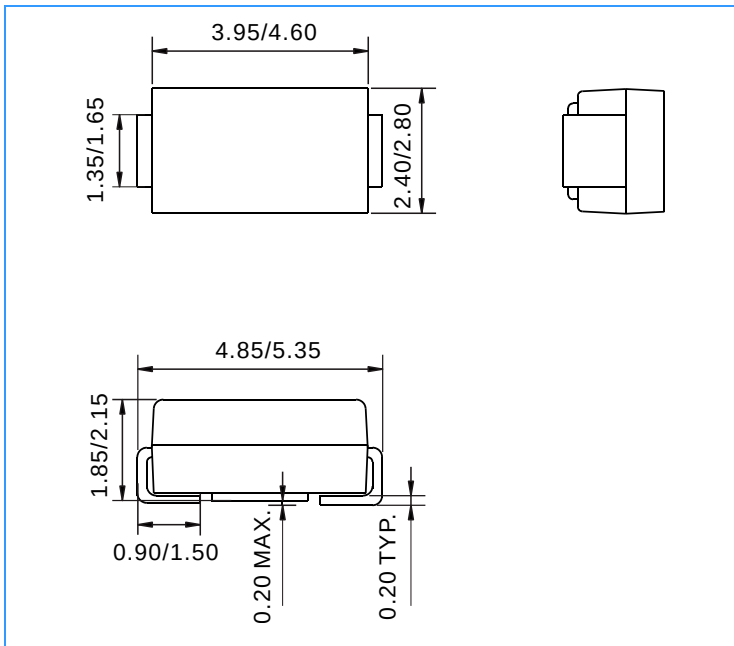


Fig 4 Forward Current Derating Curve

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)

