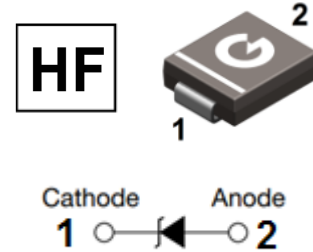


Surface Mount Rectifier

TS5DC - TS5MC

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: SMC 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	TS5DC	TS5GC	TS5JC	TS5KC	TS5MC	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}	5.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I _{FSM}	150					A

Thermal Characteristics

Parameter	Symbol	TS5DC	TS5GC	TS5JC	TS5KC	TS5MC	Unit
Typical Thermal Resistance *1	R _{θJA}	55					°C/W
	R _{θJC}	15					
	R _{θJL}	10					
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 Rectifier

TS5DC - TS5MC

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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 2\mu\text{A}$, TS5DC	200	-	-	V
		$I_R = 2\mu\text{A}$, TS5GC	400	-	-	V
		$I_R = 2\mu\text{A}$, TS5JC	600	-	-	V
		$I_R = 2\mu\text{A}$, TS5KC	800	-	-	V
		$I_R = 2\mu\text{A}$, TS5MC	1000	-	-	V
Maximum Instantaneous Forward Voltage	V_F	$I_F = 5.0\text{A}$	-	-	1.15	V
Maximum Reverse Current	I_R	Rated V_R @ $T_A = 25^\circ\text{C}$	-	-	10	μA
		@ $T_A = 125^\circ\text{C}$	-	-	250	

Surface Mount Rectifier

TS5DC - TS5MC

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

Fig.1 Forward Current Derating Curve

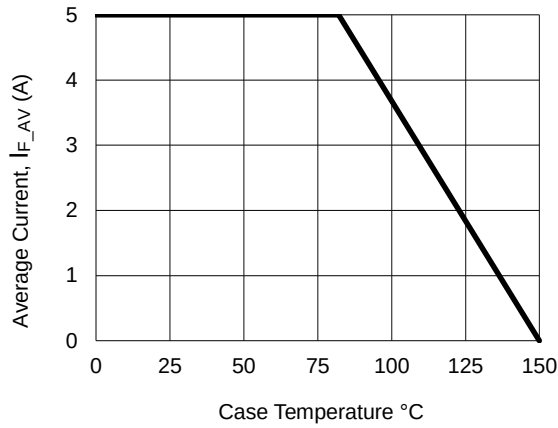


Fig.2 Surge Current Derating Curve

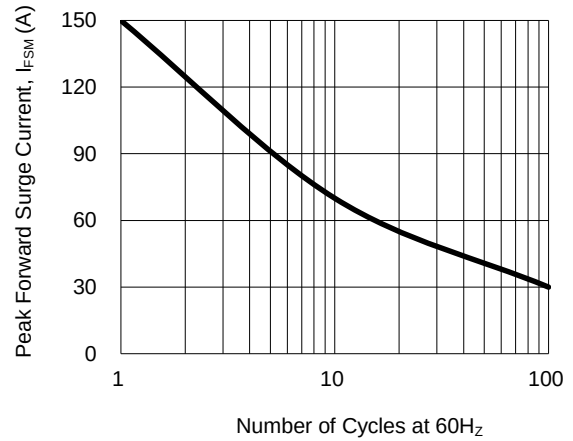


Fig.3 Typical Forward Voltage Characteristics

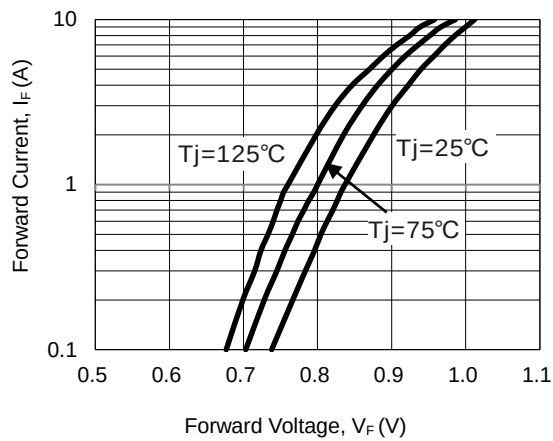
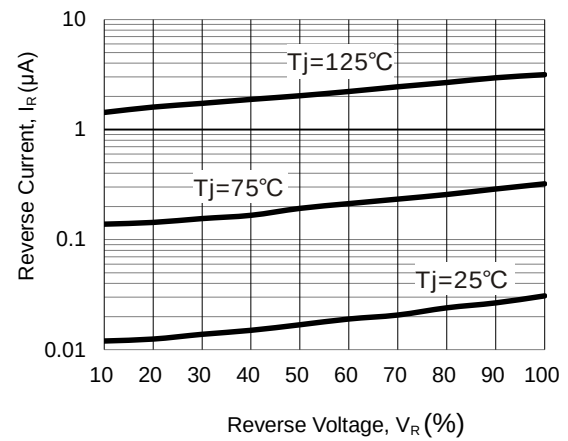


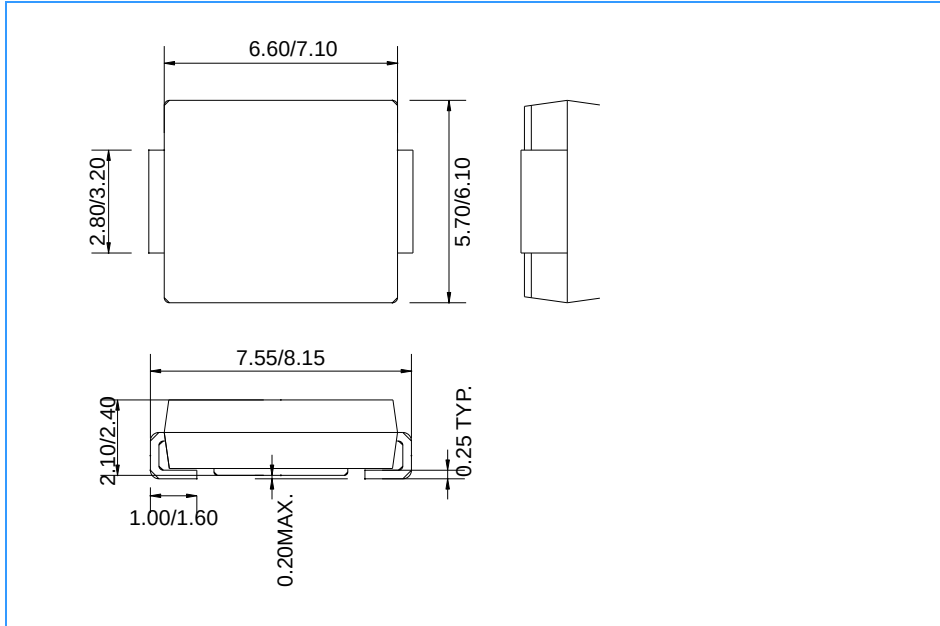
Fig.4 Typical Reverse Characteristic



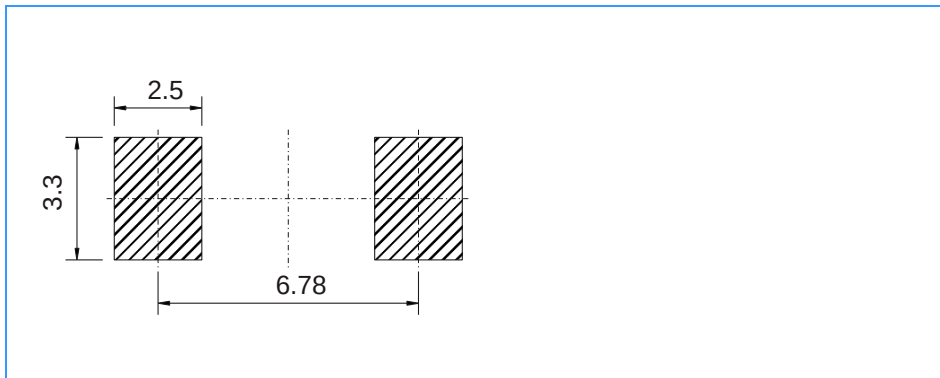
Surface Mount Rectifier

TS5DC - TS5MC

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
TS5DC	S5DC	SMC	3000 pcs / Tape & Reel
TS5GC	S5GC	SMC	3000 pcs / Tape & Reel
TS5JC	S5JC	SMC	3000 pcs / Tape & Reel
TS5KC	S5KC	SMC	3000 pcs / Tape & Reel
TS5MC	S5MC	SMC	3000 pcs / Tape & Reel