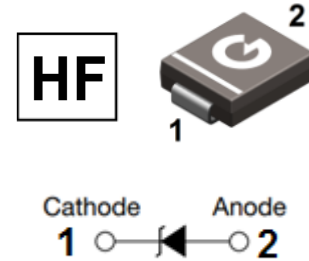


Surface Mount Rectifiers

TS8DC - TS8MC

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	TS8DC	TS8GC	TS8JC	TS8KC	TS8MC	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
Average Forward Output Current	I _{F_AV}	8.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I _{FSM}	200					A
Peak Forward Surge Current, 1ms Single Half Sine wave	I _{FSM}	339					A

Thermal Characteristics

Parameter	Symbol	TS8DC	TS8GC	TS8JC	TS8KC	TS8MC	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 Rectifiers

TS8DC - TS8MC

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 = 2μA, TS8DC		200	-	-	V
		I _R = 2μA, TS8GC		400	-	-	V
		I _R = 2μA, TS8JC		600	-	-	V
		I _R = 2μA, TS8KC		800	-	-	V
		I _R = 2μA, TS8MC		1000	-	-	V
Maximum Instantaneous Forward Voltage	V _F	I _F = 8.0A		-	-	1.15	V
Maximum Reverse Current	I _R	Rated	@ T _A = 25°C	-	-	10	μA
		V _R	@ T _A = 125°C	-	-	250	

Surface Mount Rectifiers

TS8DC - TS8MC

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

Fig.1 Forward Current Derating Curve

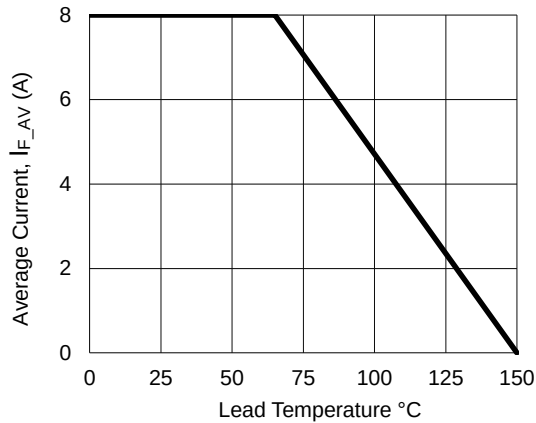


Fig.2 Surge Current Derating Curve

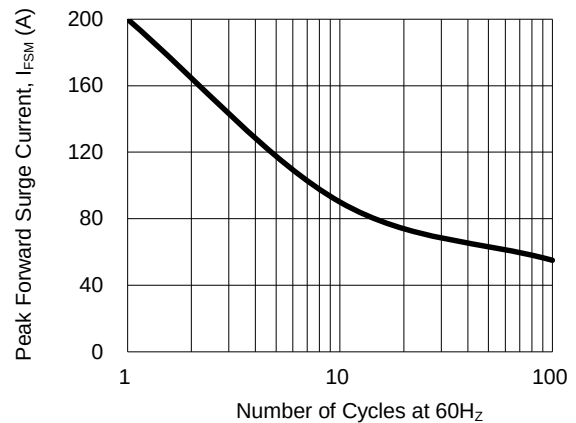


Fig.3 Typical Forward Voltage Characteristics

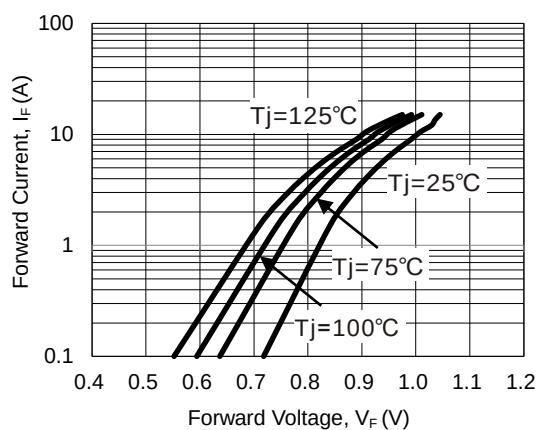
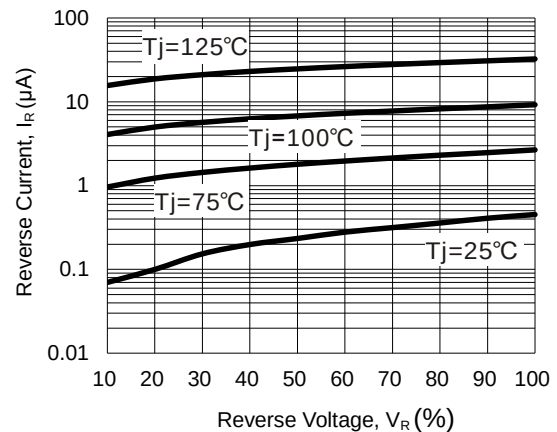


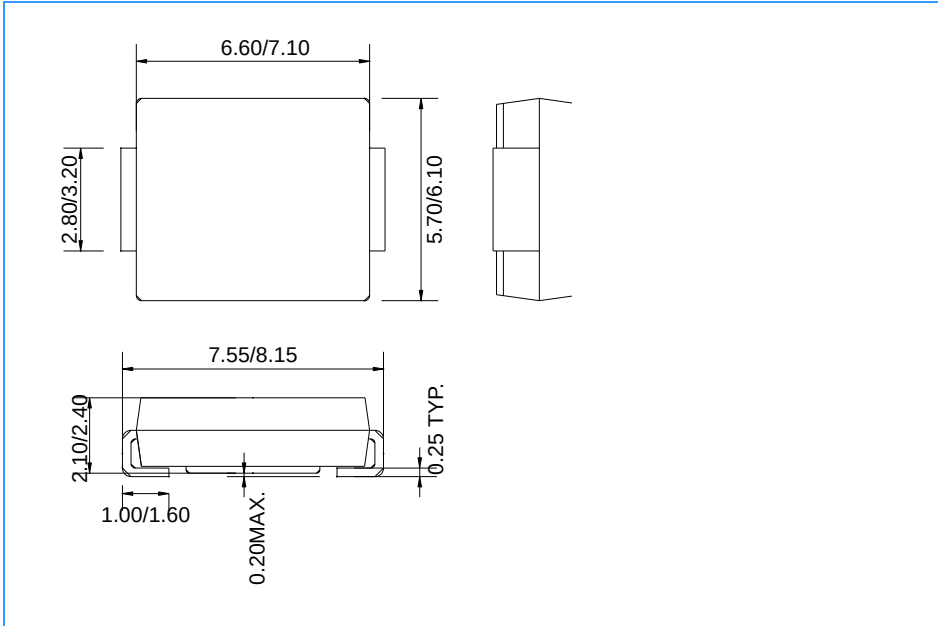
Fig.4 Typical Reverse Characteristics



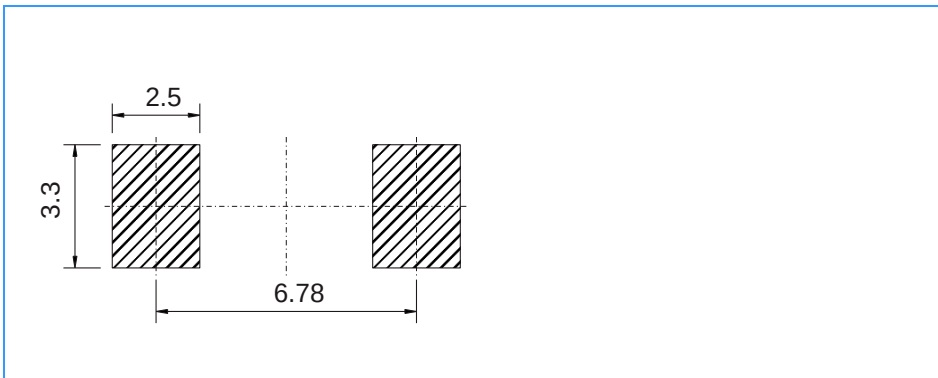
Surface Mount Rectifiers

TS8DC - TS8MC

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
TS8DC	S8DC	SMC	3000 pcs / Tape & Reel
TS8GC	S8GC	SMC	3000 pcs / Tape & Reel
TS8JC	S8JC	SMC	3000 pcs / Tape & Reel
TS8KC	S8KC	SMC	3000 pcs / Tape & Reel
TS8MC	S8MC	SMC	3000 pcs / Tape & Reel