

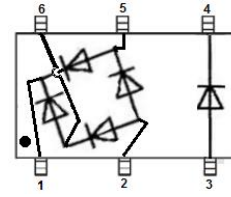
Features

- Super barrier design
- Fast switching capability
- Low forward voltage drop



Mechanical Data

- Case: SOT-23-6L
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



SOT-23-6L

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
5DS51T6□	SOT-23-6L	3000pcs / Tape & Reel	51T6

Note for □: none is for Lead-free package

“G” is for Halogen Free package.

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	45	V
RMS Reverse Voltage	V _{RMS}	31.5	V
Maximum Average Forward Output Current	I _{F(AV)}	1	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I _{FSM}	5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	400	mW
Operating junction Temperature	T _J	-55 ~ +125	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Note: * Part mounted on FR-4 board with recommended pad layout

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 0.5A	-	-	0.50	V
		I _F = 1A	-	-	0.60	
Maximum Peak Reverse Current	I _R	V _R = 40V	-	-	100	μA

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

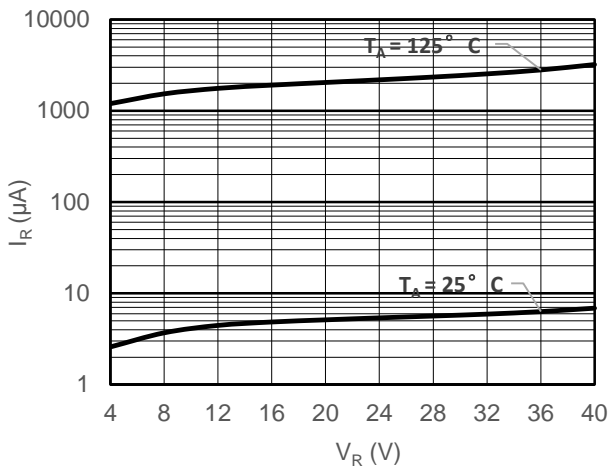


Fig 1 Typical Reverse Characteristic

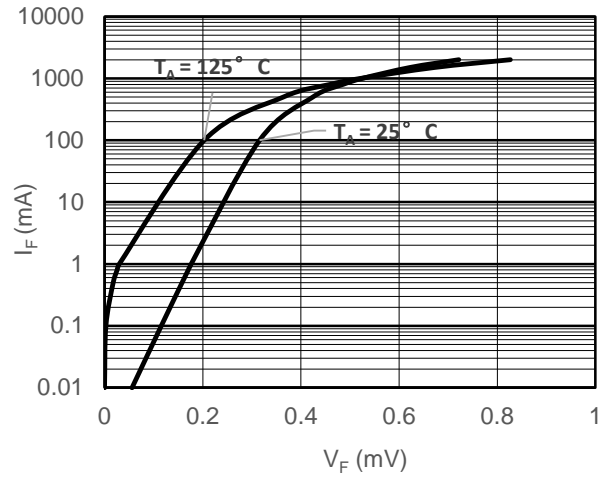


Fig 2 Typical Forward Characteristics

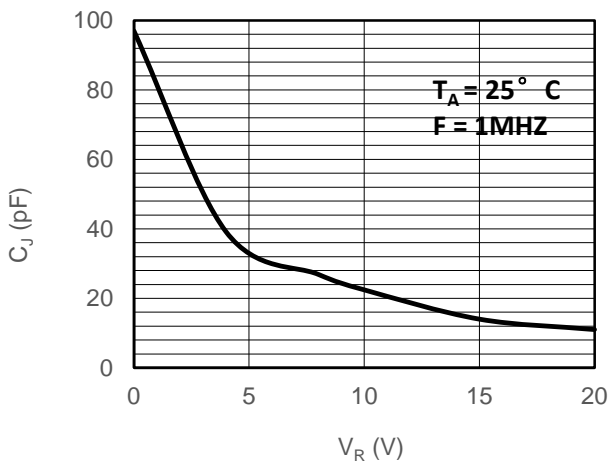
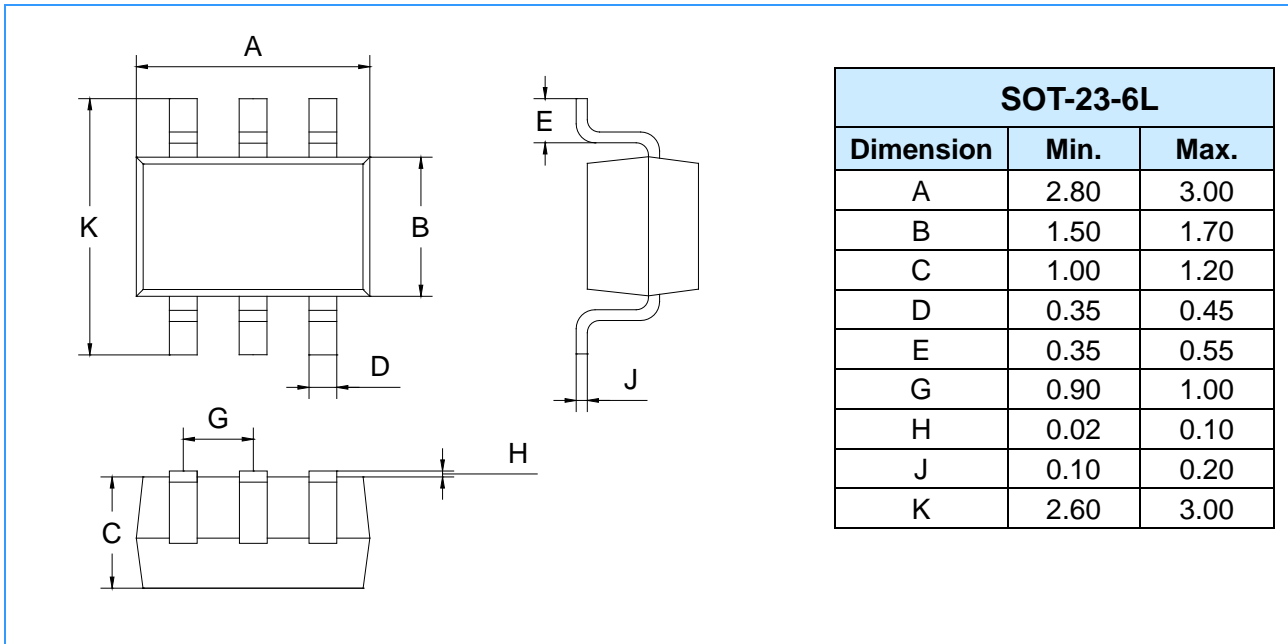
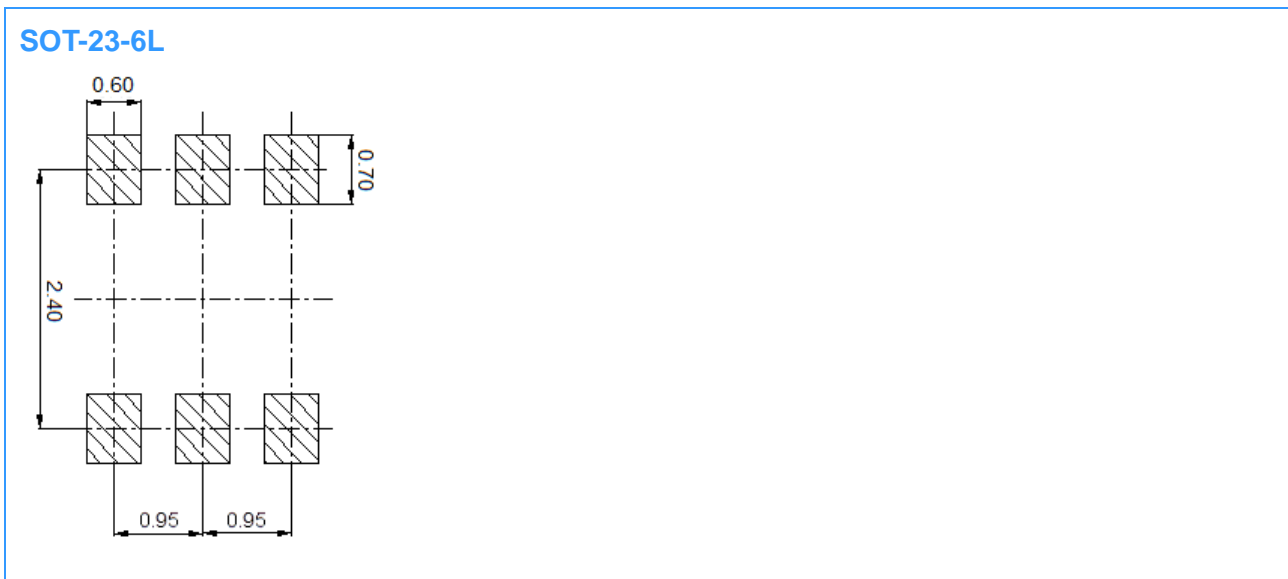


Fig 3 Capacitance Characteristics

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



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