

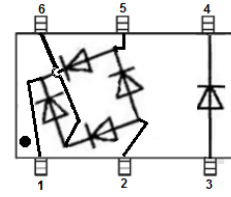
Features

- 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 (@ $T_A = 25^\circ\text{C}$ 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

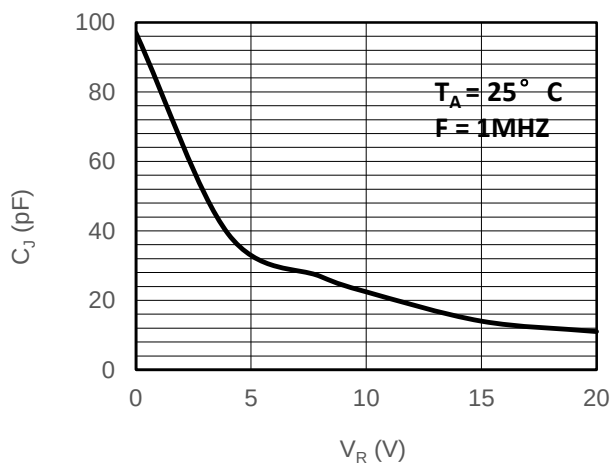
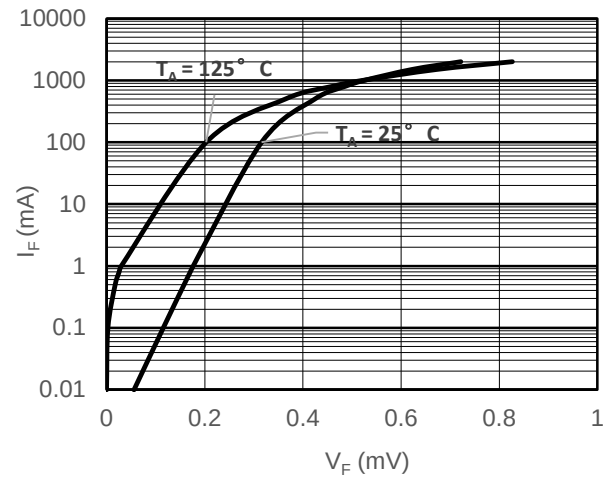
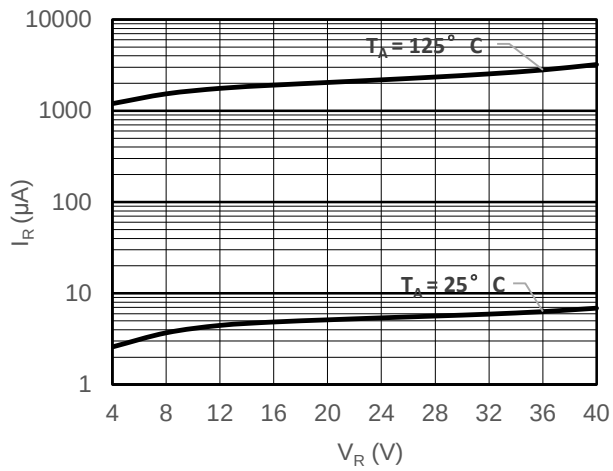
Parameter	Symbol	Value	Unit
Power Dissipation	P_D	400	mW
Operating junction Temperature	T_J	-55 ~ +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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

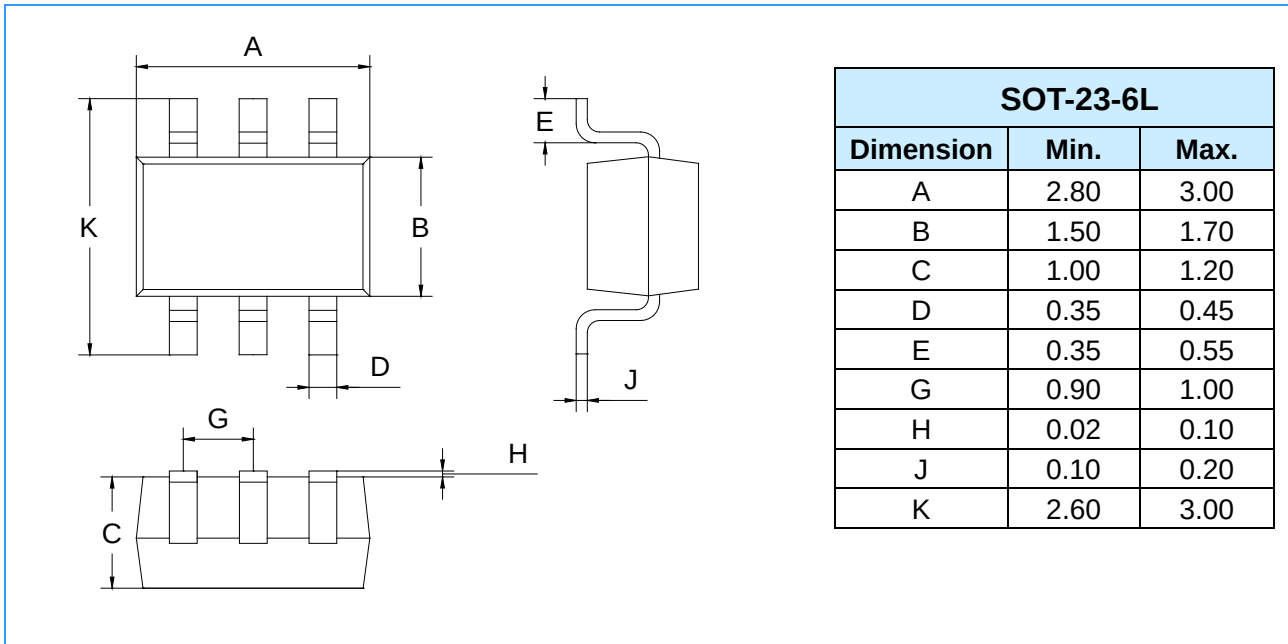
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 0.5\text{A}$	-	-	0.50	V
		$I_F = 1\text{A}$	-	-	0.60	
Maximum Peak Reverse Current	I_R	$V_R = 40\text{V}$	-	-	100	μA

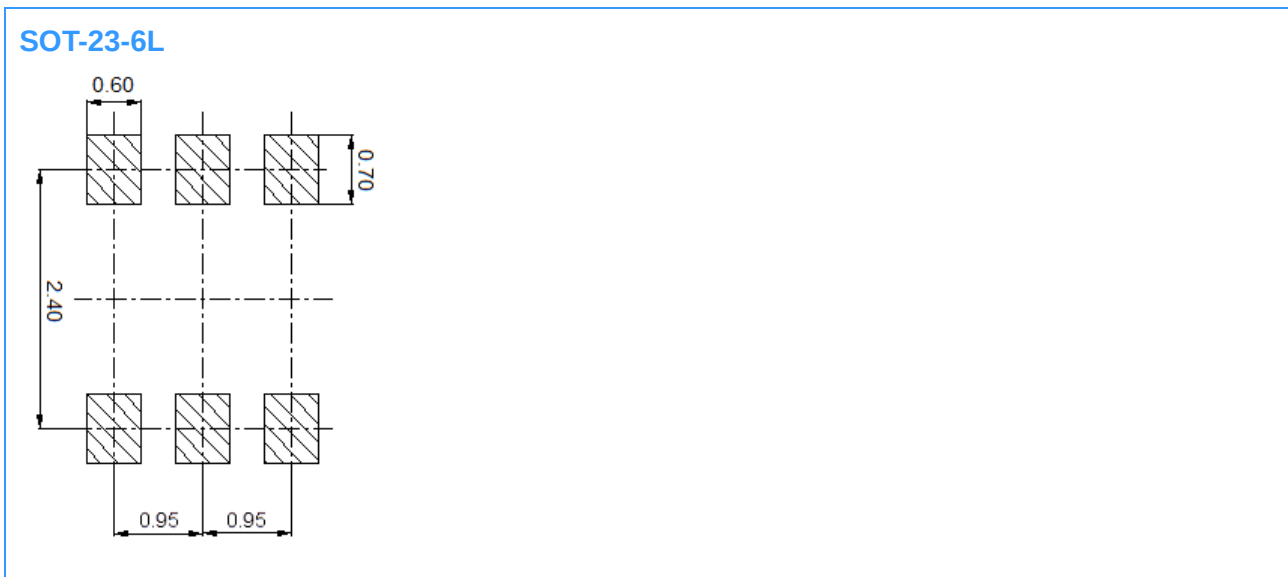
Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)



Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



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