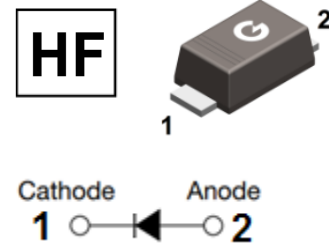


Ultra-Fast Recovery Rectifier

SOD1H4 - SOD1H5

Features

- Low forward voltage drop
- High forward surge current capability
- Low-profile SMD ideal for automated manufacturing
- RoHS compliant with Halogen-free



Mechanical Data

- Case: SOD-123FL 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 (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	SOD1H4	SOD1H5	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	300	400	V
RMS Reverse Voltage	V_{RMS}	210	280	V
DC Blocking Voltage	V_{DC}	300	400	V
Average Forward Output Current	$I_{F_{AV}}$	1.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I_{FSM}	30		A

Thermal Characteristics

Parameter	Symbol	SOD1H4	SOD1H5	Unit
Typical Thermal Resistance *1	R _{ΘJA}	85		°C/W
	R _{ΘJC}	23		
	R _{ΘJL}	15		
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 a

Ultra-Fast Recovery Rectifier

SOD1H4 - SOD1H5

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

Parameter	Symbol	Test Condition		Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 2\mu\text{A}$, SOD1H4		300	-	-	V
		$I_R = 2\mu\text{A}$, SOD1H5		400	-	-	V
Maximum Instantaneous Forward Voltage	V_F	$I_F = 1.0\text{A}$		-	-	1.3	V
Maximum Reverse Current	I_R	Rated	@ $T_A = 25^\circ\text{C}$	-	-	10	μA
		V_R	@ $T_A = 125^\circ\text{C}$	-	-	200	
Maximum Reverse Recovery Time	t_{rr}	$I_F = 0.5\text{A}$, $I_{rr} = 0.25\text{A}$, $I_R = 1\text{A}$		-	-	50	ns

Ultra-Fast Recovery Rectifier

SOD1H4 - SOD1H5

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

Fig.1 Forward Current Derating Curve

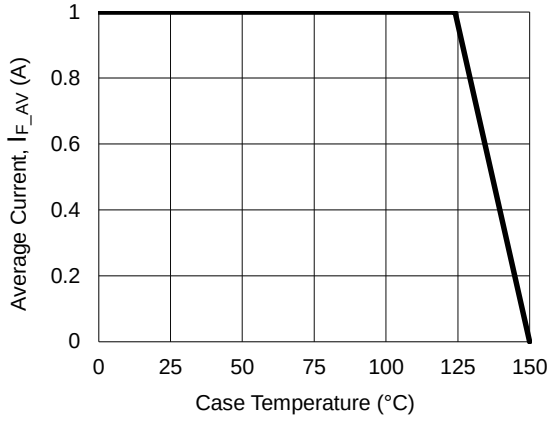


Fig.2 Surge Current Derating Curve

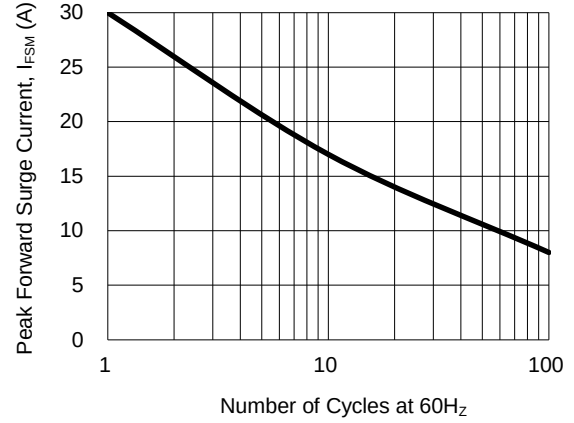


Fig.3 Typical Forward Voltage Characteristic

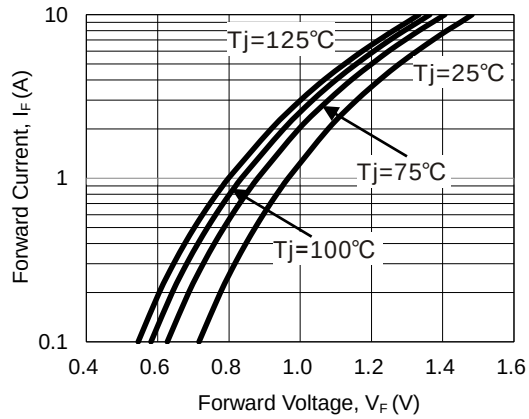
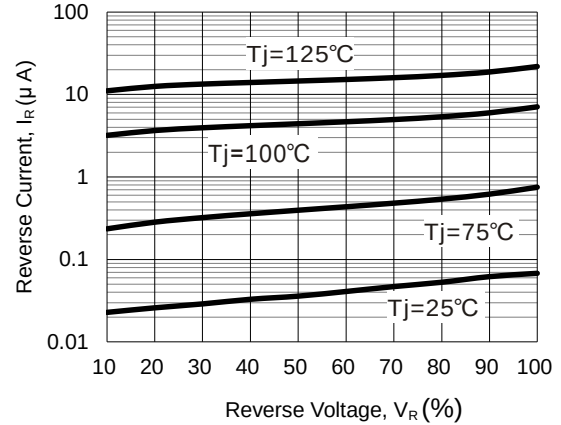


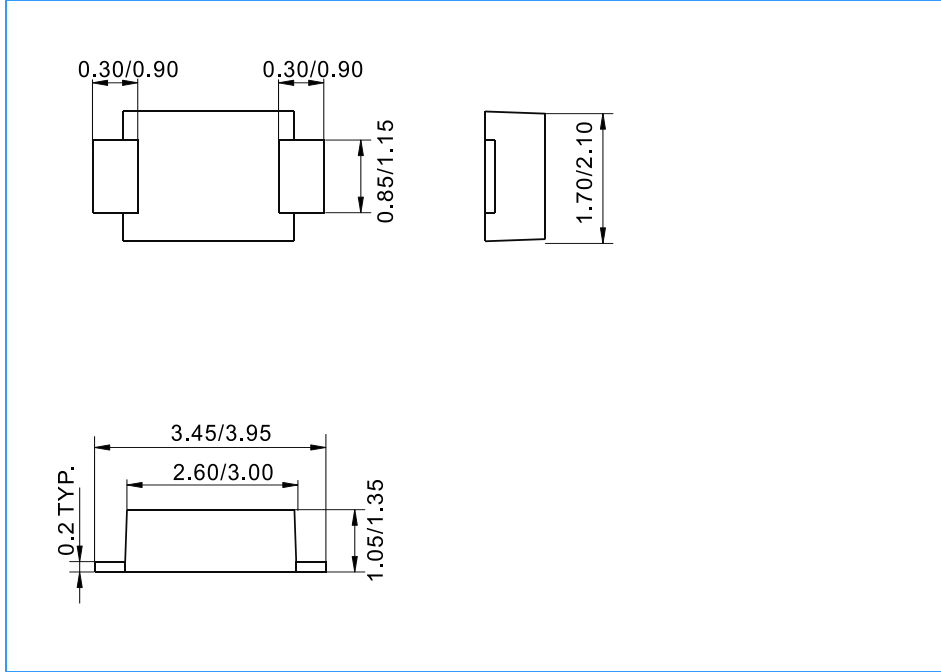
Fig.4 Typical Reverse Characteristic



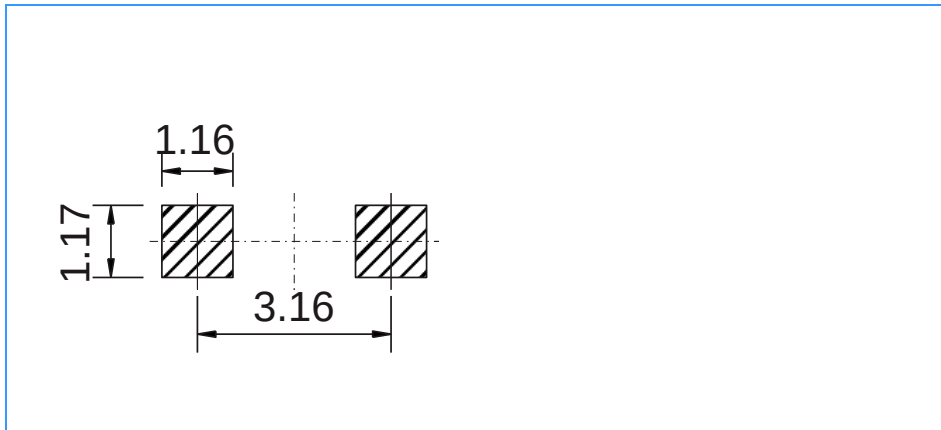
Ultra-Fast Recovery Rectifier

SOD1H4 - SOD1H5

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
SOD1H4	H4	SOD-123FL	10 kpcs / Tape & Reel
SOD1H5	H5	SOD-123FL	10 kpcs / Tape & Reel