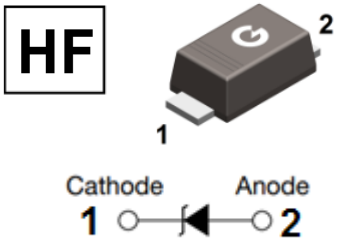
Fast Recovery Rectifier

SOD2A0FK - SOD2A0FM

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°C unless otherwise specified)

Parameter	Symbol	SOD2A0FK	SOD2A0FM	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	800	1000	V
RMS Reverse Voltage	V_{RMS}	560	700	V
DC Blocking Voltage	V_{DC}	800	1000	V
Maximum Average Forward Output Current	I_{F_AV}	2.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I_{FSM}	50		A

Thermal Characteristics

Parameter	Symbol	SOD2A0FK	SOD2A0FM	Unit
Typical Thermal Resistance *1	$R_{\Theta JA}$	85		°C/W
	$R_{\Theta JC}$	23		
	$R_{\Theta JL}$	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 area

Fast Recovery Rectifier SOD2A0FK - SOD2A0FM

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

Parameter	Symbol	Test Condition		Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R = 2μA, SOD2A0FK		800	-	-	V
		I_R = 2μA, SOD2A0FM		1000	-	-	V
Maximum Instantaneous Forward Voltage	V_F	I_F=2.0A		-	-	1.3	V
Maximum Reverse Current	I_R	Rated V_R	@T_A=25°C	-	-	10	μA
			@T_A=125°C	-	-	200	
Maximum Reverse Recovery Time	trr	I_F=0.5A,I_{RM}=1A,$I_{R(REC)}$=0.25A		-	-	500	ns

Fast Recovery Rectifier SOD2A0FK - SOD2A0FM

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

Fig. 1 Forward Current Derating Curve

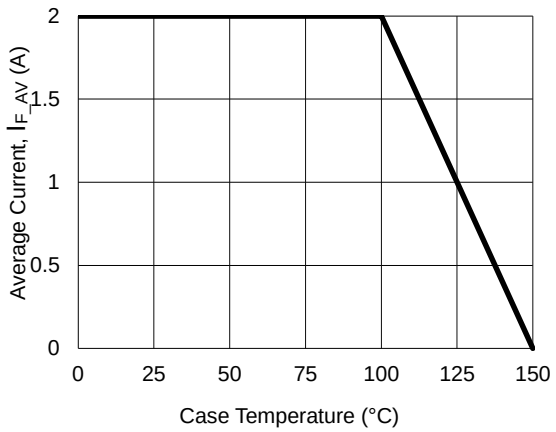


Fig. 2 Surge Current Derating Curve

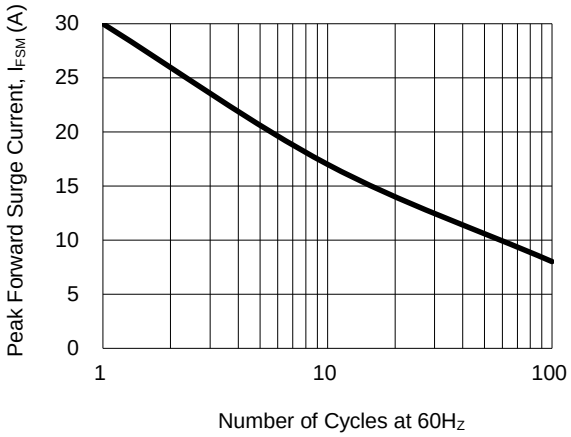


Fig. 3 Typical Forward Voltage Characteristics

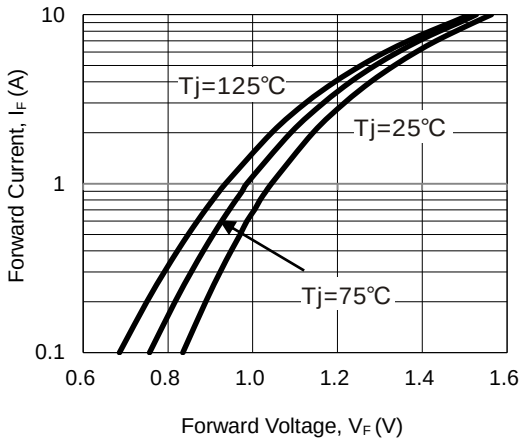
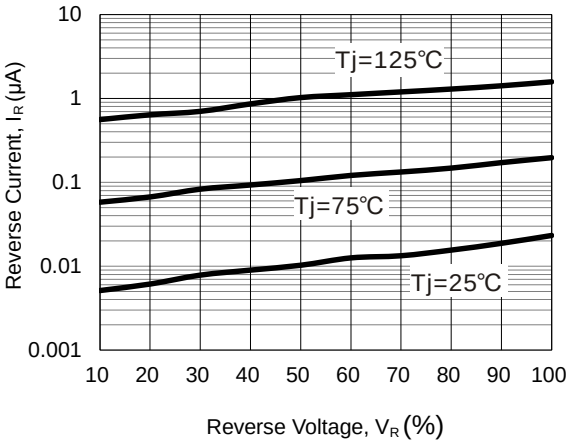
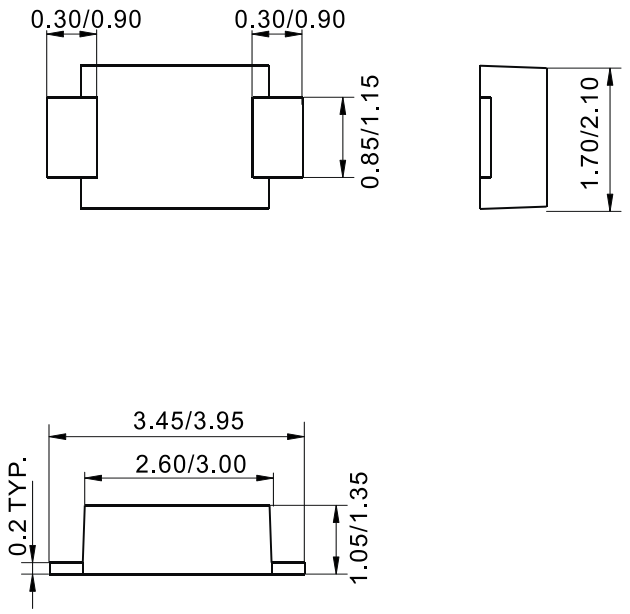


Fig. 4 Typical Reverse Characteristics

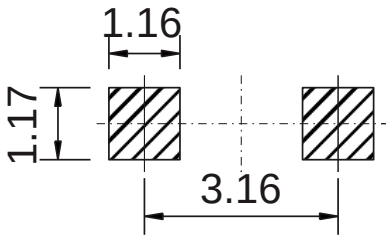


Fast Recovery Rectifier SOD2A0FK - SOD2A0FM

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
SOD2A0FK	20FK	SOD-123FL	10000 pcs / Tape & Reel
SOD2A0FM	20FM	SOD-123FL	10000 pcs / Tape & Reel