

Fast Recovery Rectifier

BYG21K - BYG21M

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: SMA 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	BYG21K	BYG21M	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
Average Forward Output Current	I _{F_AV}	1.5		A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I _{FSM}	30		A

Thermal Characteristics

Parameter	Symbol	BYG21K	BYG21M	Unit
Typical Thermal Resistance *1	R _{ΘJA}	70		°C/W
	R _{ΘJC}	25		
	R _{ΘJL}	30		
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

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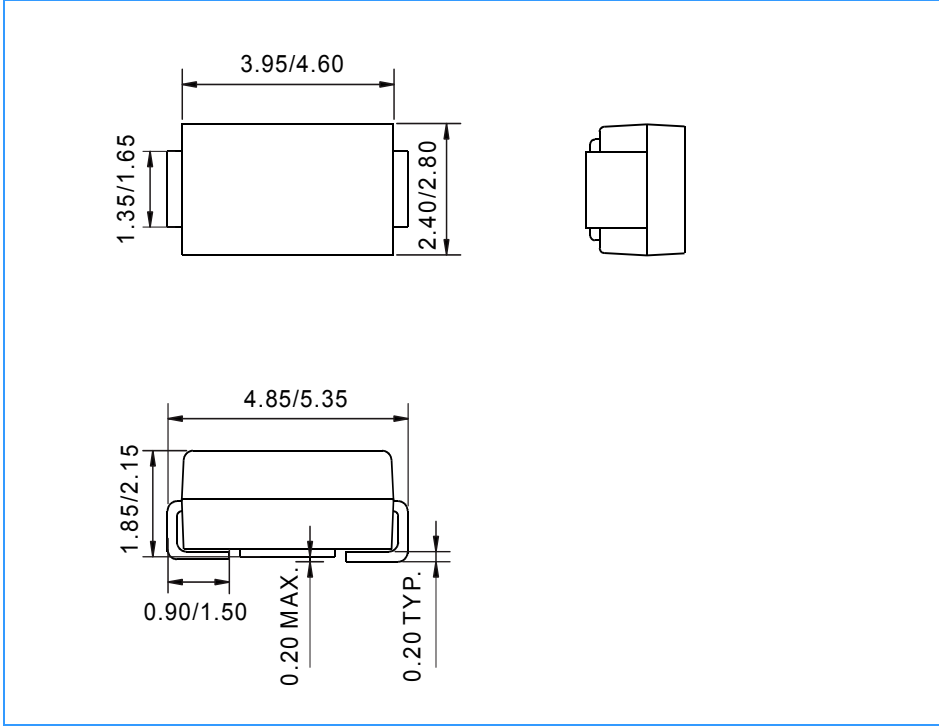
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Typ.	Max.	Unit
Instantaneous Forward Voltage	V_F	$I_F=1.0\text{A}$	-	1.5	V
Reverse Current	I_R	Rated V_R	@ $T_A=25^\circ\text{C}$	5	μA
			@ $T_A=125^\circ\text{C}$	200	
Reverse Recovery Time	t_{rr}	$I_F=0.5\text{A}, I_{RM}=1\text{A}, I_{R(REC)}=0.25\text{A}$	-	120	ns

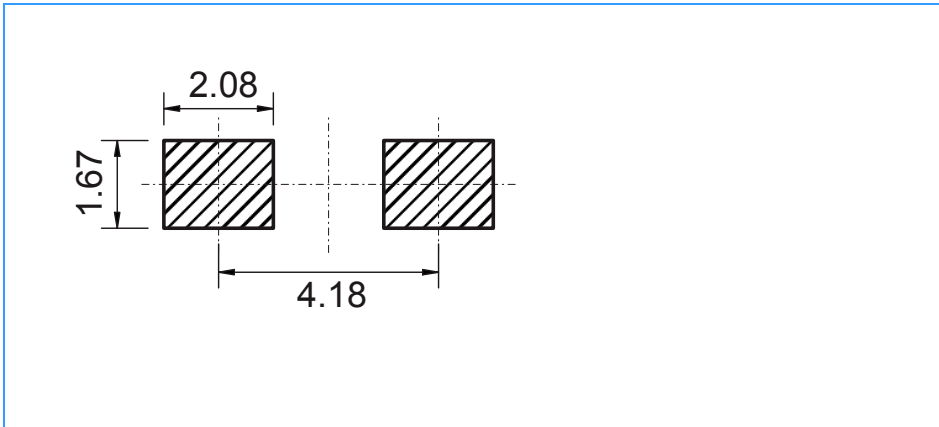
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Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
BYG21K	BYG21K	SMA	5000 / Tape & Reel
BYG21M	BYG21M	SMA	5000 / Tape & Reel