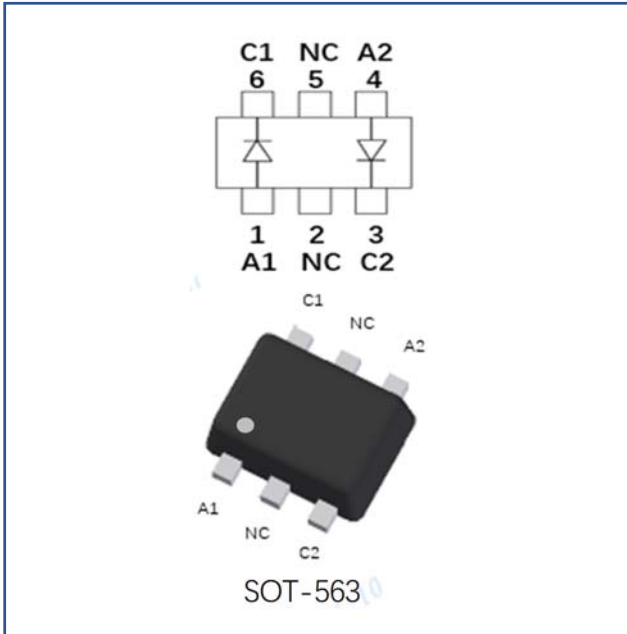


## Switching Diode



### Features

- Moisture sensitivity level 1
- Reverse voltage: 100V
- Average forward current : 200mA

### Application

- High frequency rectifier
- Signal switching

### Mechanical data

- **Package:** SOT-563
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Value
Device marking code			KAM
Continuous reverse voltage	$V_R$	V	100
Forward continuous current	$I_F$	mA	200
Non-repetitive peak forward surge current @ $t=8.3\text{ms}$ half-sine wave	$I_{FSM}$	A	1.5
Non-repetitive surge peak forward current @ $t=1\text{ms}$ square wave			1.6
Power dissipation	$P_D$	mW	150
Junction temperature	$T_J$	$^\circ\text{C}$	-55 to +150
Storage temperature	$T_{STG}$	$^\circ\text{C}$	-55 to +150



# BAS16V

RoHS  
COMPLIANT

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V <sub>R</sub>	V	I <sub>R</sub> =100uA	75		
Forward voltage	V <sub>F1</sub>	V	I <sub>F</sub> =1mA			0.715
	V <sub>F2</sub>	V	I <sub>F</sub> =10mA			0.855
	V <sub>F3</sub>	V	I <sub>F</sub> =50mA			1.0
	V <sub>F4</sub>	V	I <sub>F</sub> =150mA			1.25
Reverse current	I <sub>R</sub>	uA	V <sub>R</sub> =75V			2.5
Junction capacitance	C <sub>j</sub>	pF	f=1.0MHz, V <sub>R</sub> =0V			4
Reverse recovery time	T <sub>rr</sub>	ns	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>tr</sub> =0.1*I <sub>R</sub> , R <sub>L</sub> =100Ω			4

## ■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R <sub>θJ-A</sub> <sup>(1)</sup>	°C/W	833
Thermal resistance, junction-to-case	R <sub>θJ-C</sub> <sup>(1)</sup>	°C/W	667

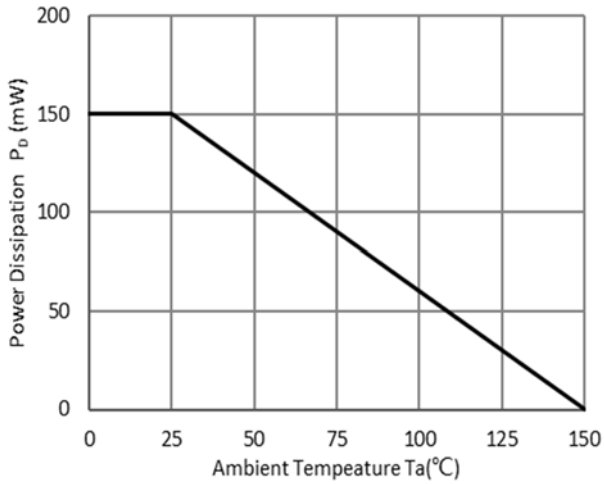
### Note:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 25.4mm\*25.4mm copper pad areas

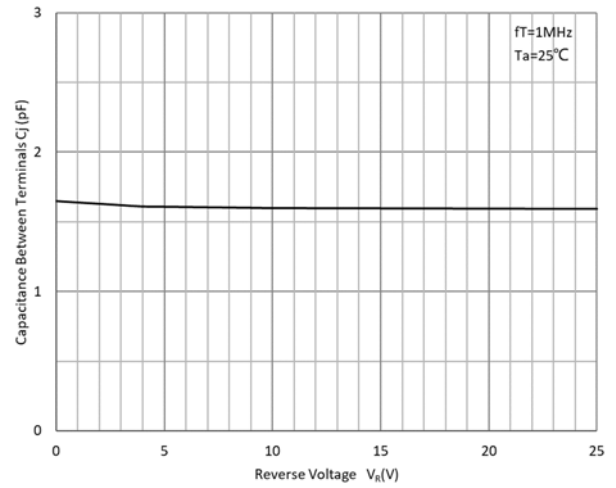


## ■ Characteristics

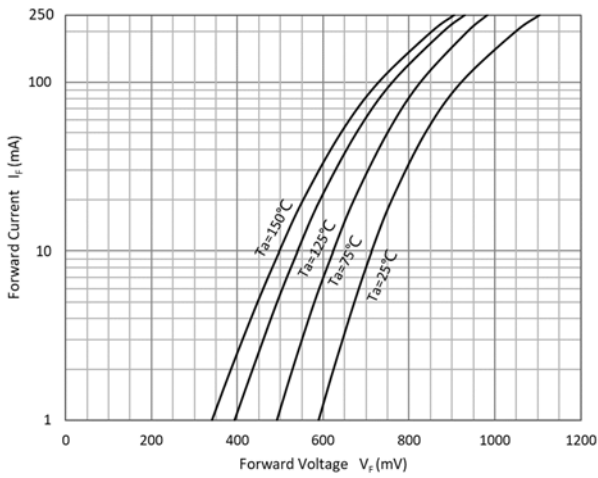
**Fig 1: P<sub>D</sub>-T<sub>a</sub> Curve**



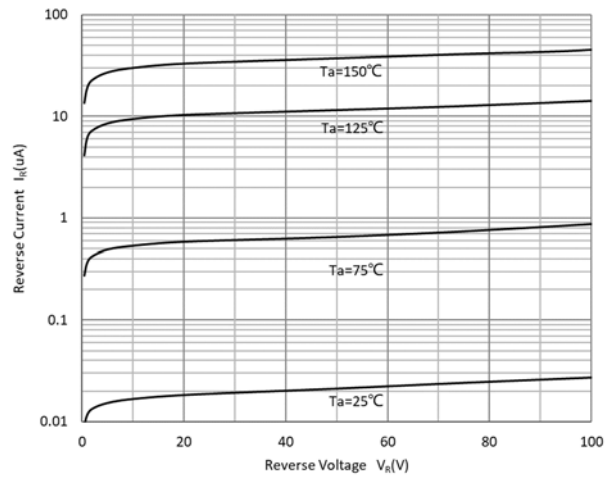
**Fig 2: Capacitance Capability**



**Fig 3: Typical Forward Characteristics**



**Fig 4: Typical Reverse Characteristics**





# BAS16V

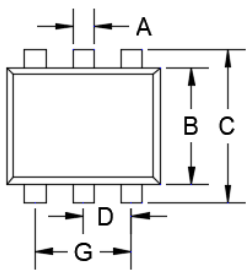
RoHS  
COMPLIANT

## Ordering Information

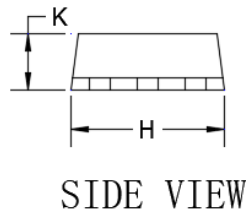
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BAS16V	F2	Approximate 0.0035	3000	30000	120000	7" reel

## Outline Dimensions

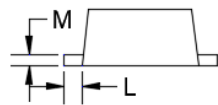
SOT-563



TOP VIEW



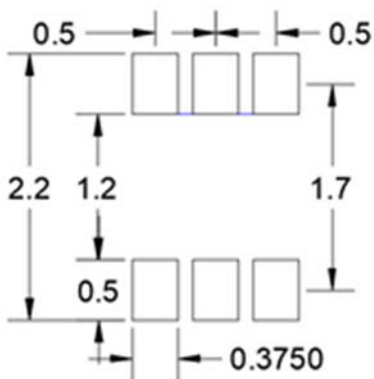
SIDE VIEW



SIDE VIEW

DIM	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.006	0.011	0.150	0.300
B	0.043	0.051	1.100	1.300
C	0.059	0.067	1.500	1.700
D	0.016	0.024	0.400	0.600
G	0.035	0.043	0.900	1.100
H	0.059	0.067	1.500	1.700
K	0.021	0.026	0.550	0.650
L	0.004	0.011	0.100	0.300
M	0.004	0.007	0.100	0.180

## Suggested Pad Layout



UNIT:mm



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