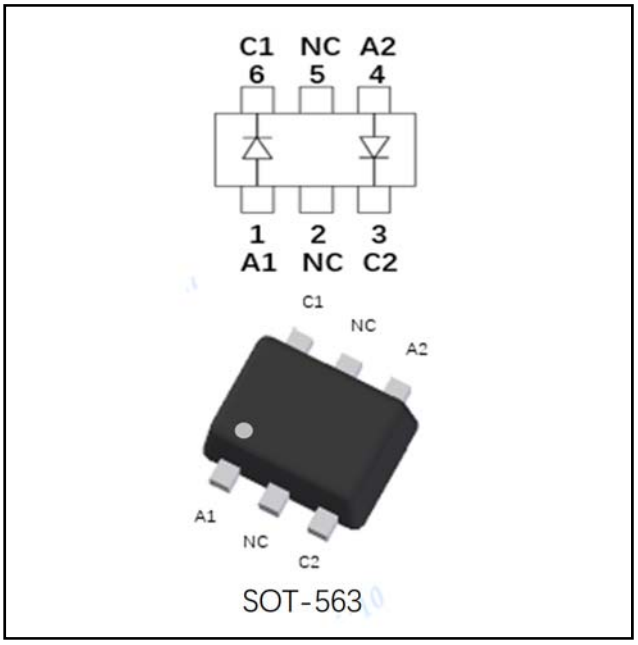
Schottky Barrier Diode



Features

- Moisture sensitivity level 1
- Reverse voltage: 30V
- Average forward current : 200mA

Application

- High frequency and low voltage rectifier

Mechanical data

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

■ **Maximum Ratings** (T_a=25℃ Unless otherwise specified)

Item	Symbol	Unit	Value
Device marking code			KAV
Continuous reverse voltage	V_R	V	30
Forward continuous current	I_F	mA	200
Non-repetitive surge peak forward current @ t=8.3ms half-sine wave	I_{FSM}	A	0.6
Non-repetitive surge peak forward current @ t=1ms square wave			1.5
Power dissipation	P_D	mW	150
Junction temperature	T_J	℃	-55 to +125
Storage temperature	T_{STG}	℃	-55 to +125

■ Electrical Characteristics (Ta=25℃ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Forward voltage	V_{F1}	V	I_F=0.1mA			0.24
	V_{F2}	V	I_F=1mA			0.32
	V_{F3}	V	I_F=10mA			0.4
	V_{F4}	V	I_F=30mA			0.5
	V_{F5}	V	I_F=100mA			1
Reverse current	I_R	uA	V_R=25V			2
Junction capacitance	Cj	pF	f=1.0MHz, V_R=1.0V			10
Reverse recovery time	Trr	ns	IF=IR=10mA ,Irr=0.1*IR, RL=100Ω			5

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}$(1)	℃/W	667
Thermal resistance, junction-to-case	$R_{\theta J-C}$(1)	℃/W	533

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_D-Ta Curve

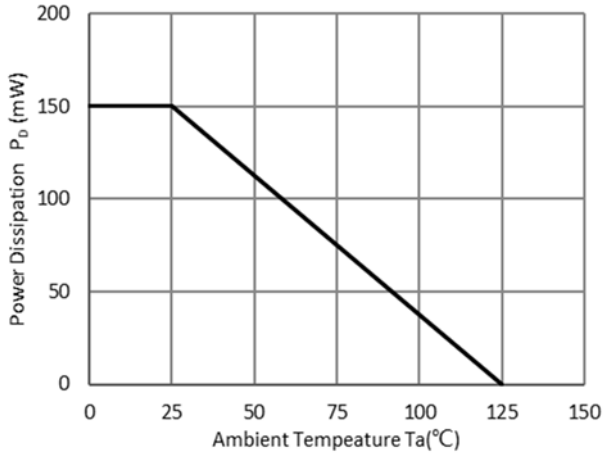


Fig 2：Capacitance Capability

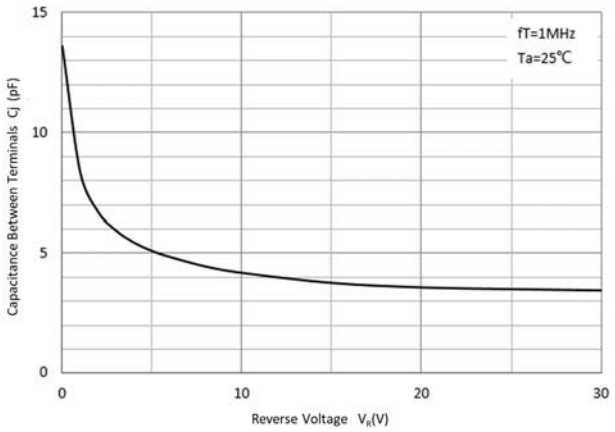


Fig 2：Typical Forward Characteristics

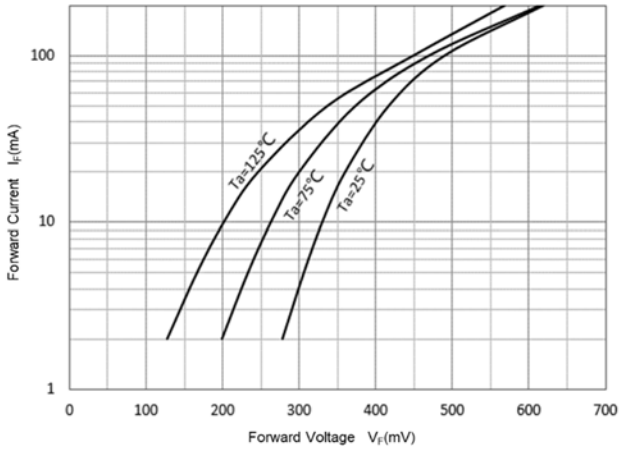
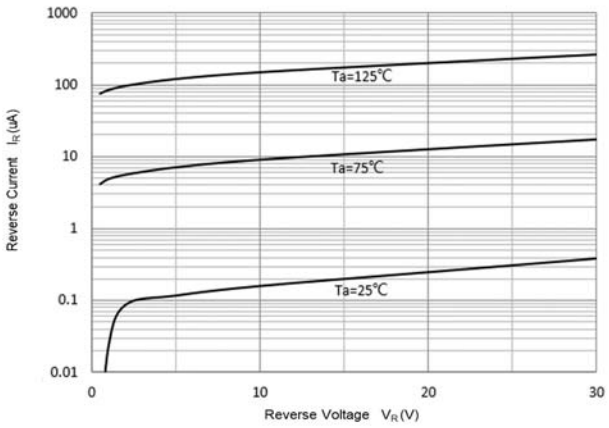


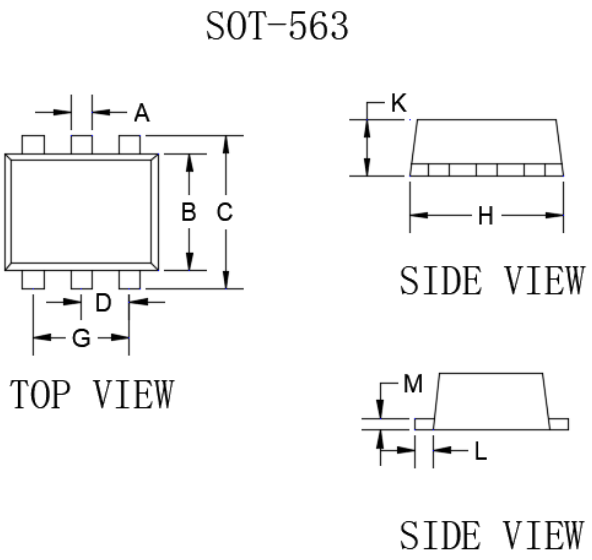
Fig 3： Typical Reverse Characteristics



■Ordering Information

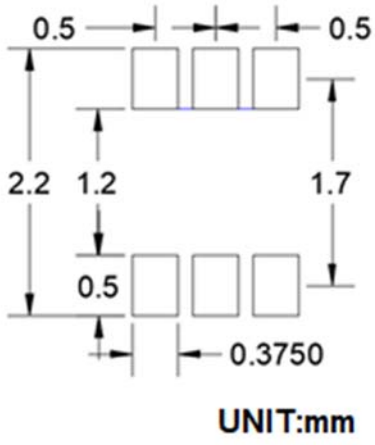
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BAT54V	F2	Approximate 0.0035	3000	30000	120000	7" reel

■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MN	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



Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
[所有尺寸均以毫米为单位，除非另有说明]
2. General tolerances: ±0.10mm unless otherwise specified.
[通用公差为±0.10mm，除非另有说明]
3. Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
4.All dimensions shown are exclusive of burrs and gate residues.
Burrs and gate vestiges shall not exceed 0.15 mm in maximum.
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
5.Dimension b does not include dambar protrusion of max 0.100 mm per side.
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
6.Dimensions B and H are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.
[B和H是塑封体的外部极限尺寸，不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺，但是包含了包封错位的最大尺寸]
7.Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.
[成型的管脚应为同一平面，共面性最大为0.1mm]

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