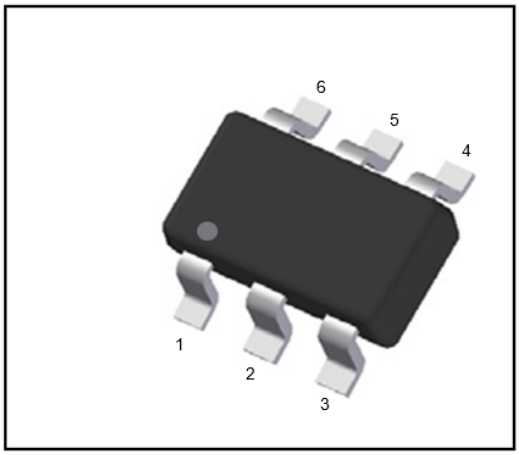
Schottky Barrier Diodes



Features

- We declare that the material of product compliance with RoHS requirements and Halogen Free
- Surface mount package ideally suited for automatic Insertion
- Moisture Sensitivity Level 1
- Reverse voltage：40 V
- Average forward current ：200mA

Application

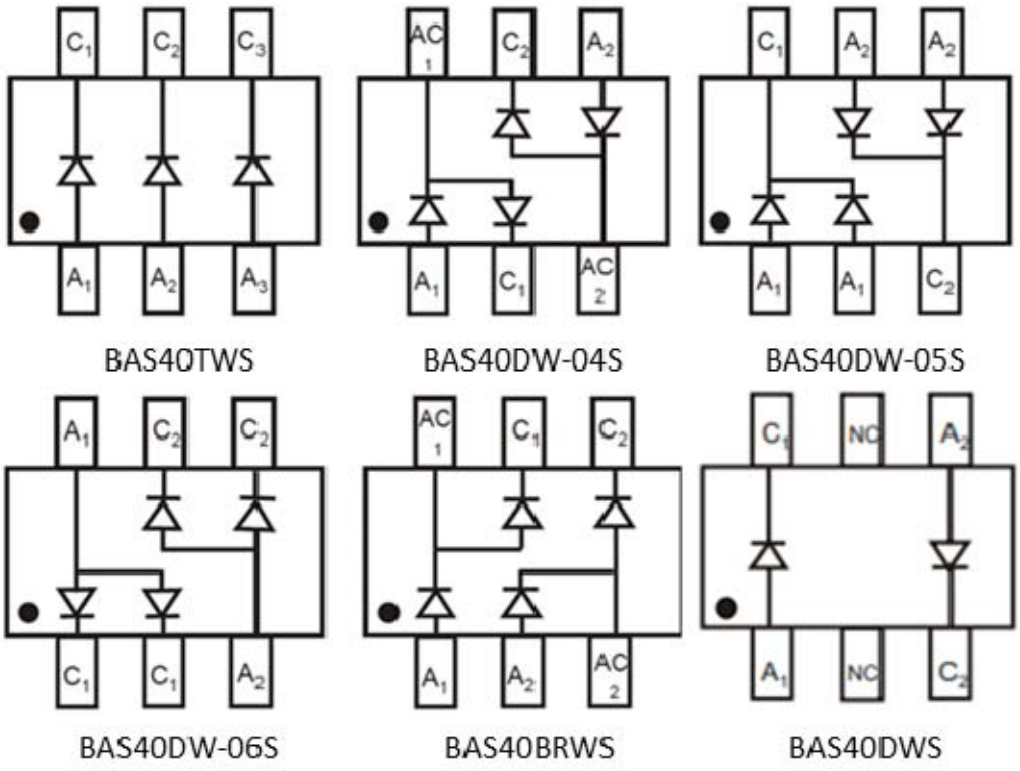
- Fast switching
- Low leakage current
- Low junction capacitance

Mechanical Data

- **Package**: SOT-363S
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking**:

BAS40TWS	K43
BAS40DW-04S	K44
BAS40DW-05S	K45
BAS40DW-06S	K461
BAS40BRWS	K47
BAS40DWS	K48

■Equivalent circuit



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

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		40
Reverse voltage	V_R	V		40
Average forward current	I_{FAV}	mA		200
Non-repetetive peak forward surge current	I_{FSM}	A	tp=8.3ms	2
Repetitive Peak Forward Current	I_{FRM}	A	tp=1ms，δ=0.25	1
Power dissipation	P_D	mW		200
Thermal Resistance Junction to Ambient Air	RθJA	℃/W		625
Maximum junction temperature	T_j	℃		-55 ~+150
Storage temperature range	T_{stg}	℃		-55 ~+150

■ **Electrical Characteristics** (Ta=25℃ unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Max
Breakdown Voltage	V_R	V	I_R=10uA	40	
Forward Voltage	V_F	V	I_F=1mA		0.38
			I_F=40mA		1
Reverse Leakage Current	I_R	uA	V_R=30V		0.2
Capacitance	Cj	pF	V_R=0V,f=1MHz		5
Reverse Recovery Time	T_{RR}	ns	I_F=I_R=10mA,R_L=100Ω,I_R=1mA		5

■ Electrical Characteristics (Typical)

Fig 1：P_D-Ta Curve

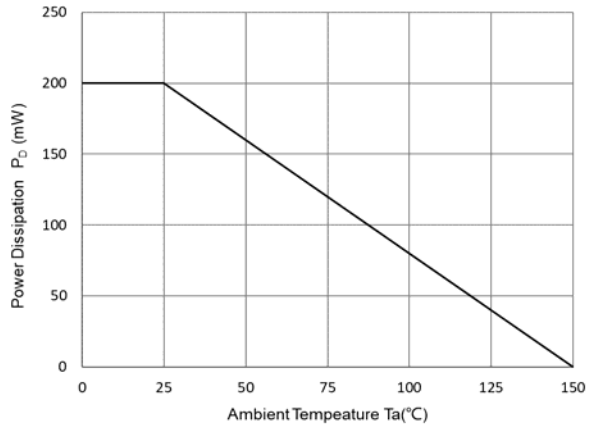


Fig 2：Capacitance Capability

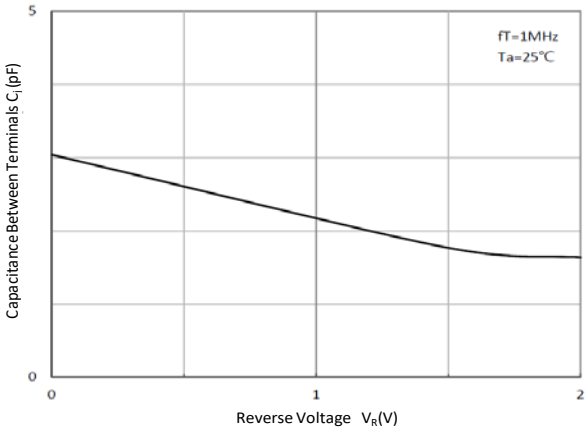


Fig 3：Typical Forward Characteristics

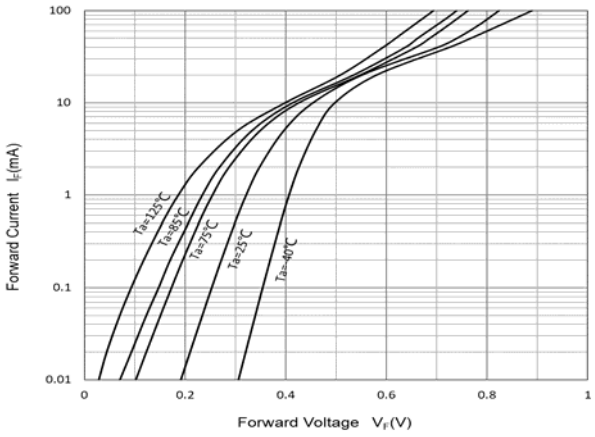
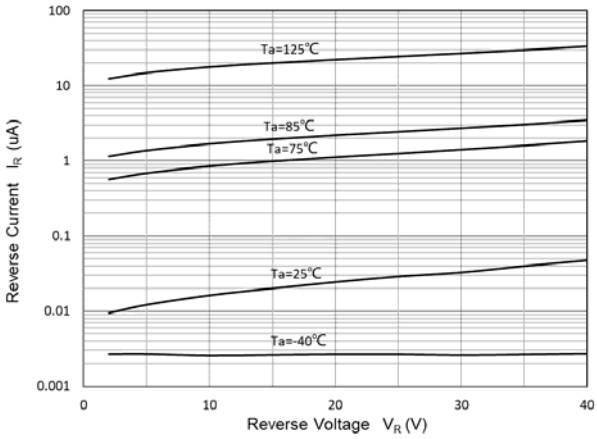


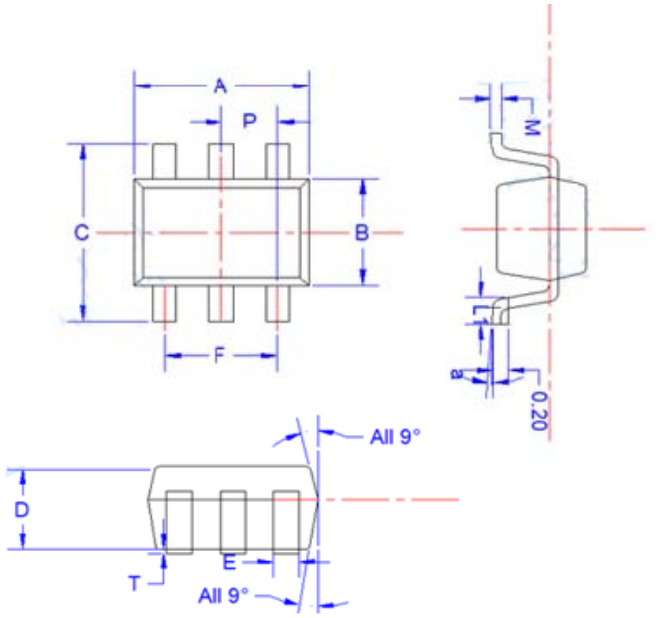
Fig 4：Typical Reverse Characteristics



■ Ordering Information (Example)

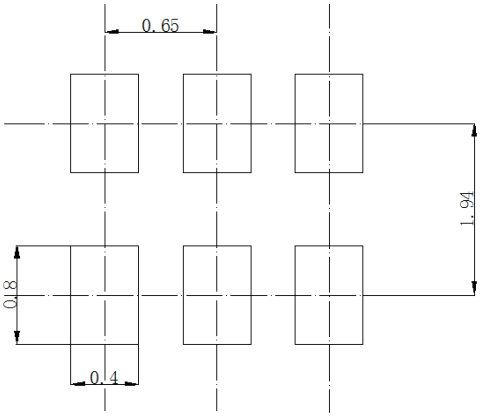
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS40TWS	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40DW-04S	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40DW-05S	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40DW-06S	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40BRWS	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40DWS	F2	Approximate 0.009g	3000	30000	120000	7" reel

■SOT-363 Package Outline Dimensions



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
E	0.15	0.25	0.35
B	1.15	1.25	1.35
C	2.00	2.10	2.20
P		0.650BSC	
A	1.80	2.00	2.20
T	0.00	0.05	0.100
D	0.90	0.95	1.00
L1	0.20	0.30	0.40
a		4°±4°	
M	0.10	0.15	0.25

■SOT-363 Soldering Footprint



Unit: mm

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 D and E 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.
[D和E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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