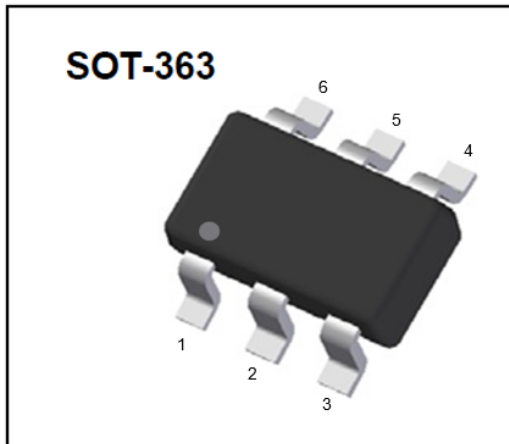


Schottky Barrier Diodes



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

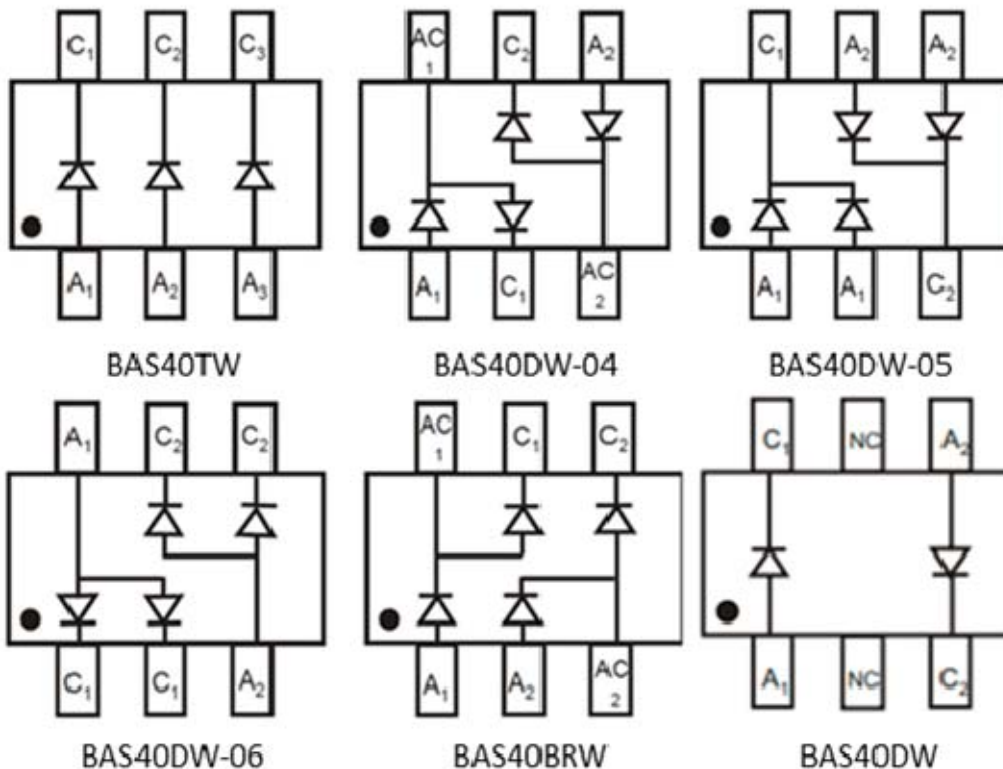
- Fast switching
- Low leakage current
- Low junction capacitance

Mechanical Data

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

BAS40TW	K43
BAS40DW-04	K44
BAS40DW-05	K45
BAS40DW-06	K461
BAS40BRW	K47
BAS40DW	K48

■Equivalent circuit





BAS40TW THRU BAS40BRW

■ Maximum Ratings (Ta=25°C 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-repetitive peak forward surge current	I_{FSM}	A	$t_p=8.3ms$	2
Repetitive Peak Forward Current	I_{FRM}	A	$t_p=1ms, \delta=0.25$	1
Power dissipation	P_D	mW		200
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	°C/W		625
Maximum junction temperature	T_j	°C		-55 ~+150
Storage temperature range	T_{stg}	°C		-55 ~+150

■ Electrical Characteristics (Ta=25°C unless otherwise specified)

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



BAS40TW THRU BAS40BRW

■ Electrical Characteristics (Typical)

Fig 1: P_D - T_a Curve

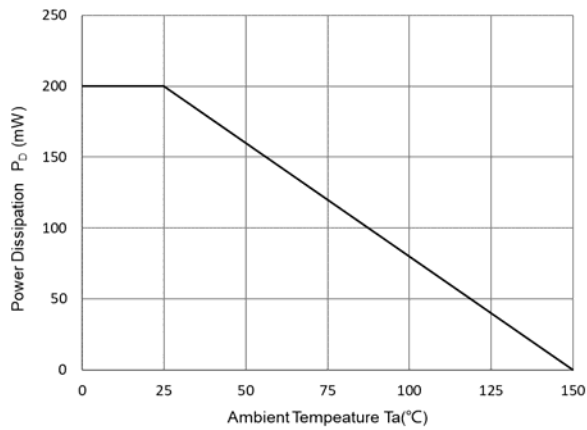


Fig 2: Capacitance Capability

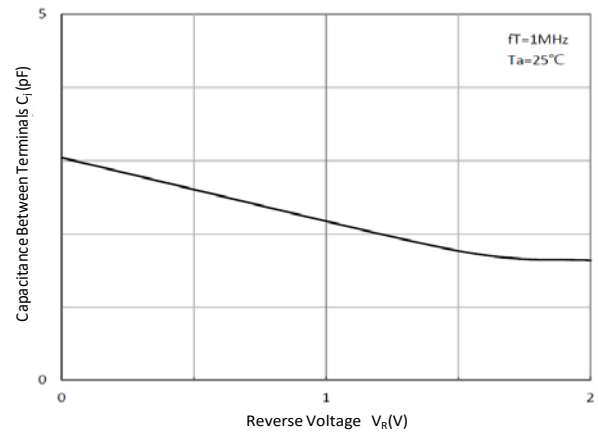


Fig 3: Typical Forward Characteristics

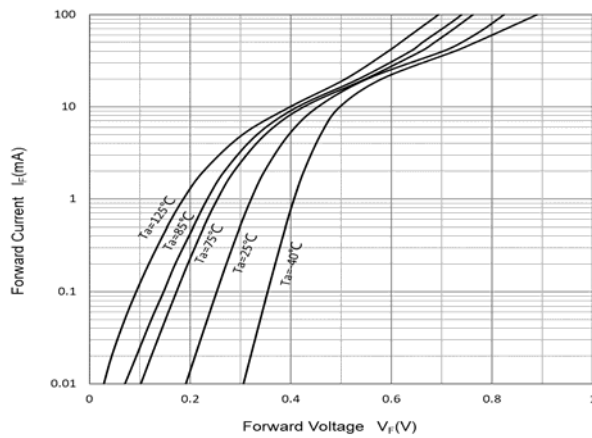
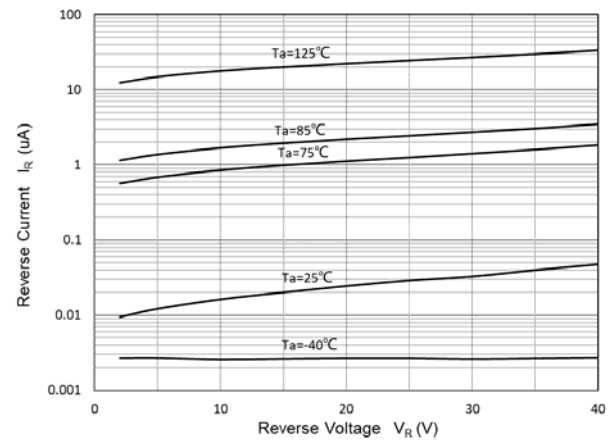


Fig 4: Typical Reverse Characteristics



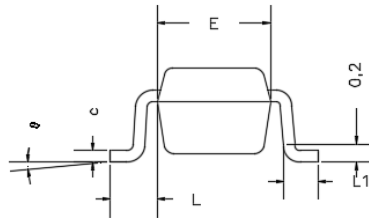
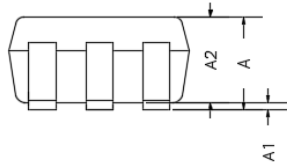
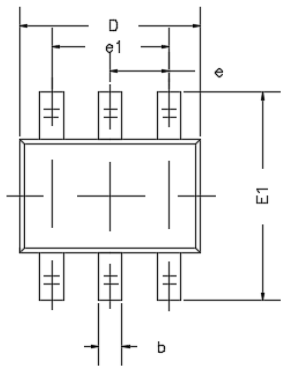


BAS40TW THRU BAS40BRW

■ Ordering Information (Example)

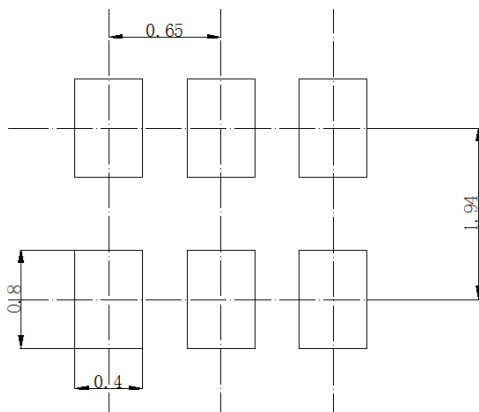
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS40TW	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40DW-04	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40DW-05	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40DW-06	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40BRW	F2	Approximate 0.009g	3000	30000	120000	7" reel
BAS40DW	F2	Approximate 0.009g	3000	30000	120000	7" reel

■SOT-363 Package Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.014	0.150	0.350
c	0.002	0.010	0.050	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026TYP		0.65TYP	
e1	0.047	0.055	1.200	1.400
L	0.021TYP		0.525TYP	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

■SOT-363 Soldering Footprint



Unit: mm

Note:

- 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]
- General tolerances: $\pm 0.10\text{mm}$ unless otherwise specified.
[通用公差为 $\pm 0.10\text{mm}$, 除非另有说明]
- Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
- 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]
- 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]
- 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最大尺寸]
- 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]



BAS40TW THRU BAS40BRW

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.