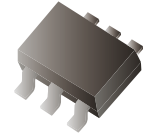


BAS16TW-HF

RoHS Device
Halogen Free



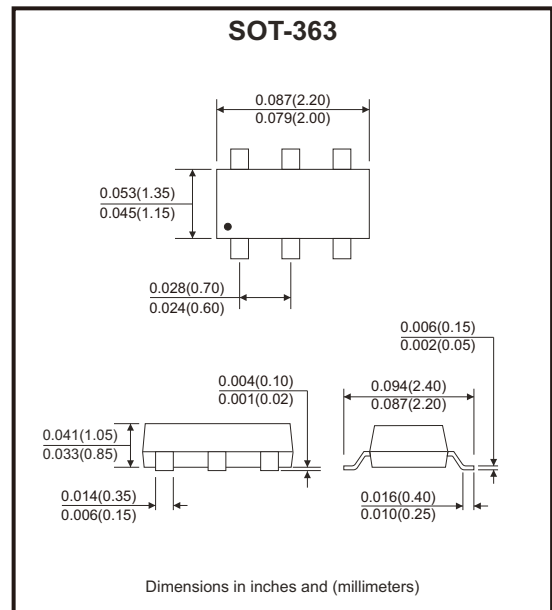
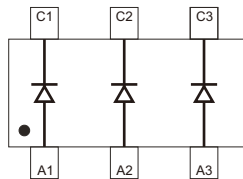
Features

- Fast switching speed.
- High conductance.

Mechanical data

- Case: SOT-363, molded plastic.
- Molding compound: UL flammability classification rating 94V-0.
- Terminals: Matte tin-plated leads, solderability-per MIL-STD-202, method 208.
- Mounting position: Any.

Circuit Diagram



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive peak reverse voltage	V_{RRM}	100	V
Working peak reverse voltage	V_{RWM}	100	V
DC blocking voltage	V_R	100	V
RMS reverse voltage	V_{RMS}	70	V
Average rectified output current	I_O	150	mA
Peak forward surge current, 1μs single half-sine-wave	I_{FSM}	2	A
Peak forward surge current, 1s single half-sine-wave	I_{FSM}	1	
Power dissipation	P_D	200	mW
Thermal resistance junction to air	$R_{\theta JA}$	625	°C/W
Operating junction temperature range	T_J	-65 to +150	°C
Storage temperature range	T_{STG}	-65 to +150	°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	$I_R = 1\mu A$	$V_{(BR)}$	100			V
Forward voltage	$I_F = 1mA$	V_F			0.715	V
	$I_F = 10mA$				0.855	
	$I_F = 50mA$				1.00	
	$I_F = 150mA$				1.25	
Reverse current	$V_R = 20V$	I_R			25	nA
	$V_R = 75V$				1	μA
	$V_R = 25V, T_J = 150^\circ C$				30	μA
	$V_R = 75V, T_J = 150^\circ C$				50	μA
Total capacitance	$V_R = 0V, f = 1MHz$	C_J			2	pF
Reverse recovery time	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	t_{rr}			4	nS

Rating and Characteristic Curves (BAS16TW-HF)

Fig.1 - Forward Characteristics

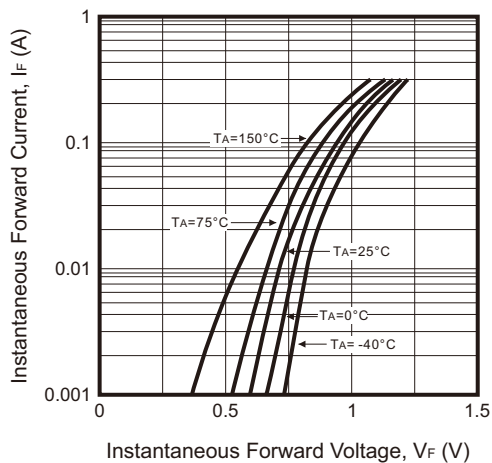


Fig.2 - Typical Reverse Characteristics

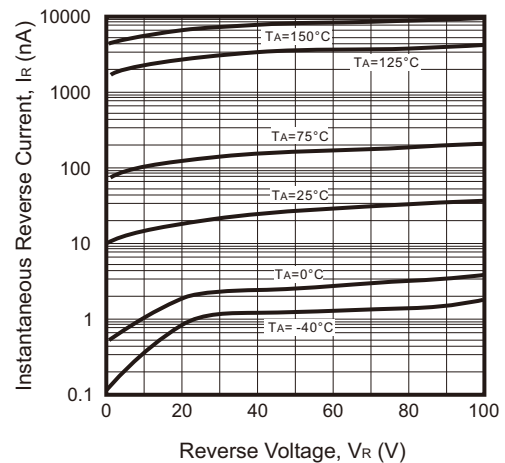


Fig.3 - Typical Capacitance vs. Reverse Voltage

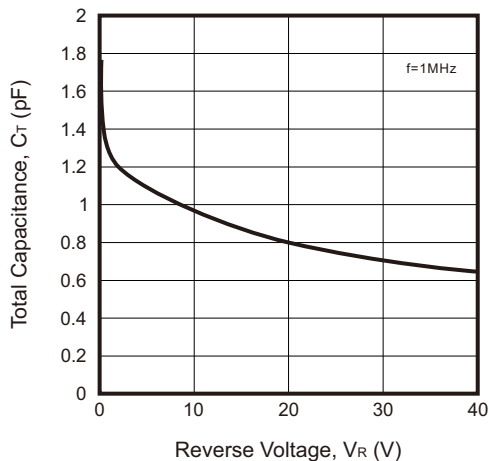
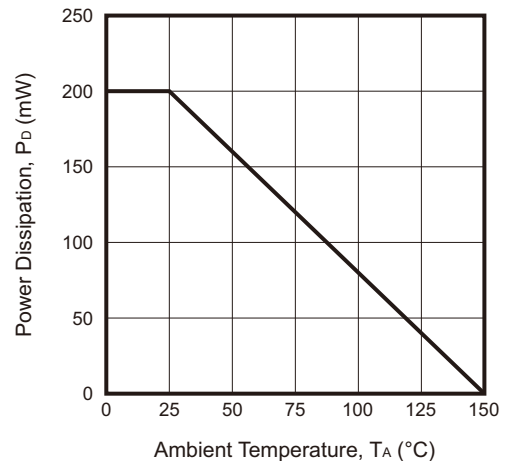
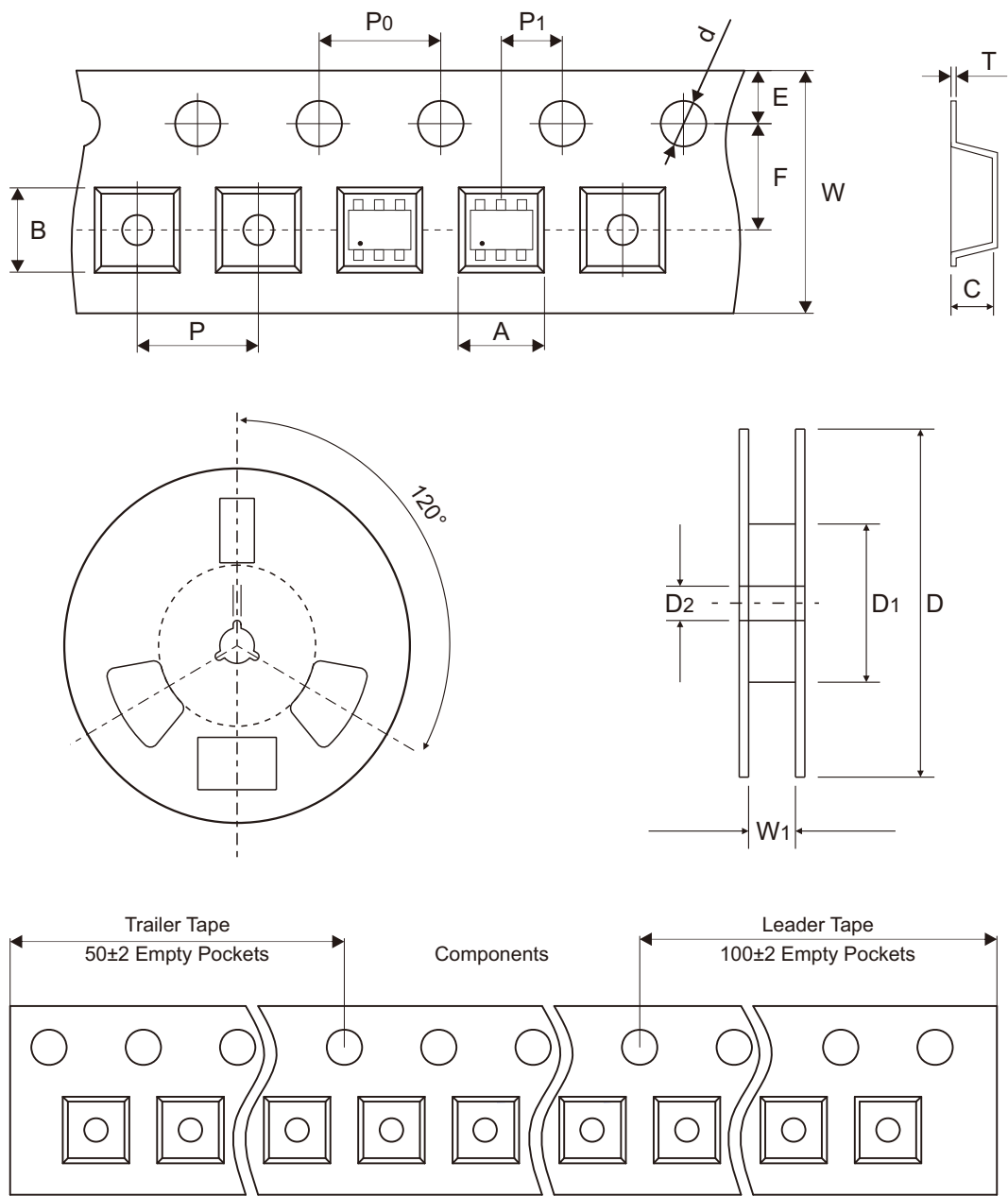


Fig.4 - Power Derating Curve



Reel Taping Specification

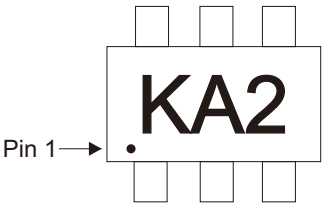


SOT-363	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.40 ± 0.10	2.50 ± 0.10	1.20 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.094 ± 0.004	0.098 ± 0.004	0.047 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOT-363	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.374 ± 0.039

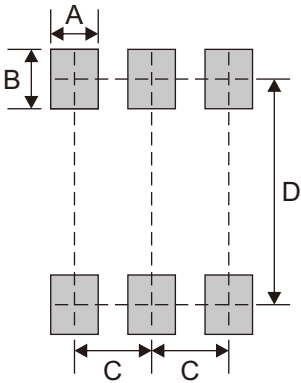
Marking Code

Part Number	Marking Code
BAS16TW-HF	KA2



Suggested P.C.B. PAD Layout

SIZE	SOT-363	
	(mm)	(inch)
A	0.40	0.016
B	0.50	0.020
C	0.65	0.026
D	1.90	0.075



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-363	3,000	7