

BAS16TW-P2-HF

RoHS Device
Halogen Free



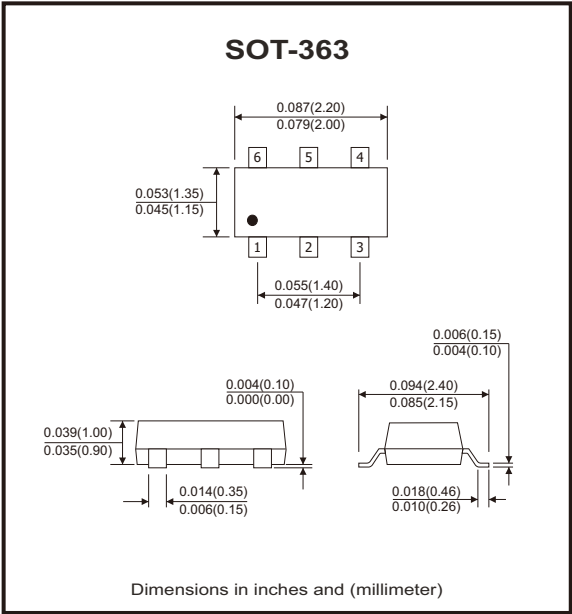
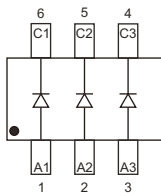
Features

- Fast switching applications.
- High conductance.

Mechanical data

- Case: SOT-363, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- 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
Repetitive peak reverse voltage	V_{RRM}	75	V
Repetitive peak forward current	I_{FRM}	300	mA
Continuous forward current	I_O	150	mA
Non-repetitive peak forward surge current @ t=8.3ms	I_{FSM}	2	A
Power dissipation	P_D	200	mW
Junction temperature	T_J	150	°C
Storage temperature range	T_{STG}	-55 to +150	°C
Thermal resistance junction to ambient	$R_{\theta JA}$	625	°C/W

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	$I_R = 10\mu A$	V_{BR}	75			V
Reverse voltage leakage current	$V_R = 20V$	I_R			25	nA
	$V_R = 75V$	I_R			1	μA
Forward voltage	$I_F = 1mA$	V_F			0.715	V
	$I_F = 10mA$	V_F			0.855	V
	$I_F = 50mA$	V_F			1	V
	$I_F = 150mA$	V_F			1.25	V
Junction 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

Typical Rating and Characteristic Curves (BAS16TW-P2-HF)

Fig.1 - Forward Characteristics

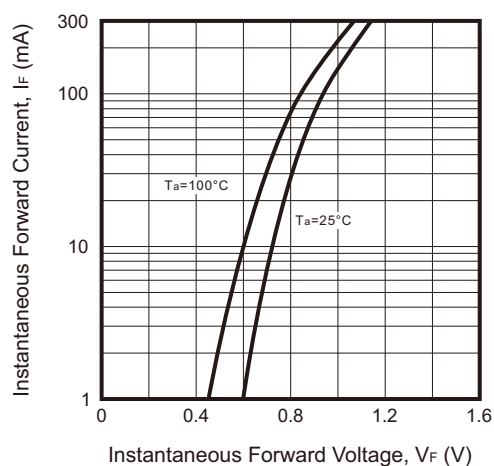


Fig.2 - Reverse Characteristics

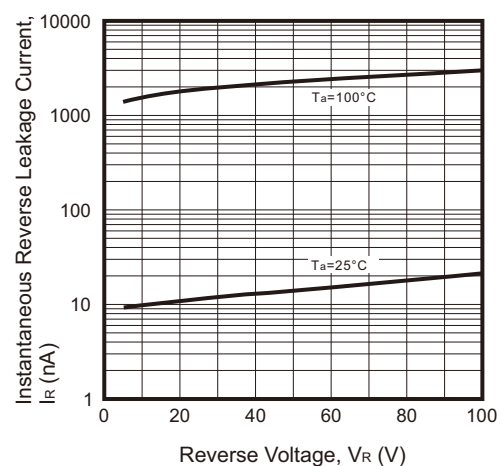
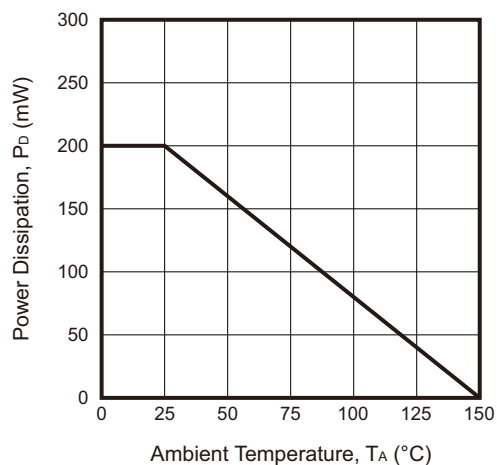
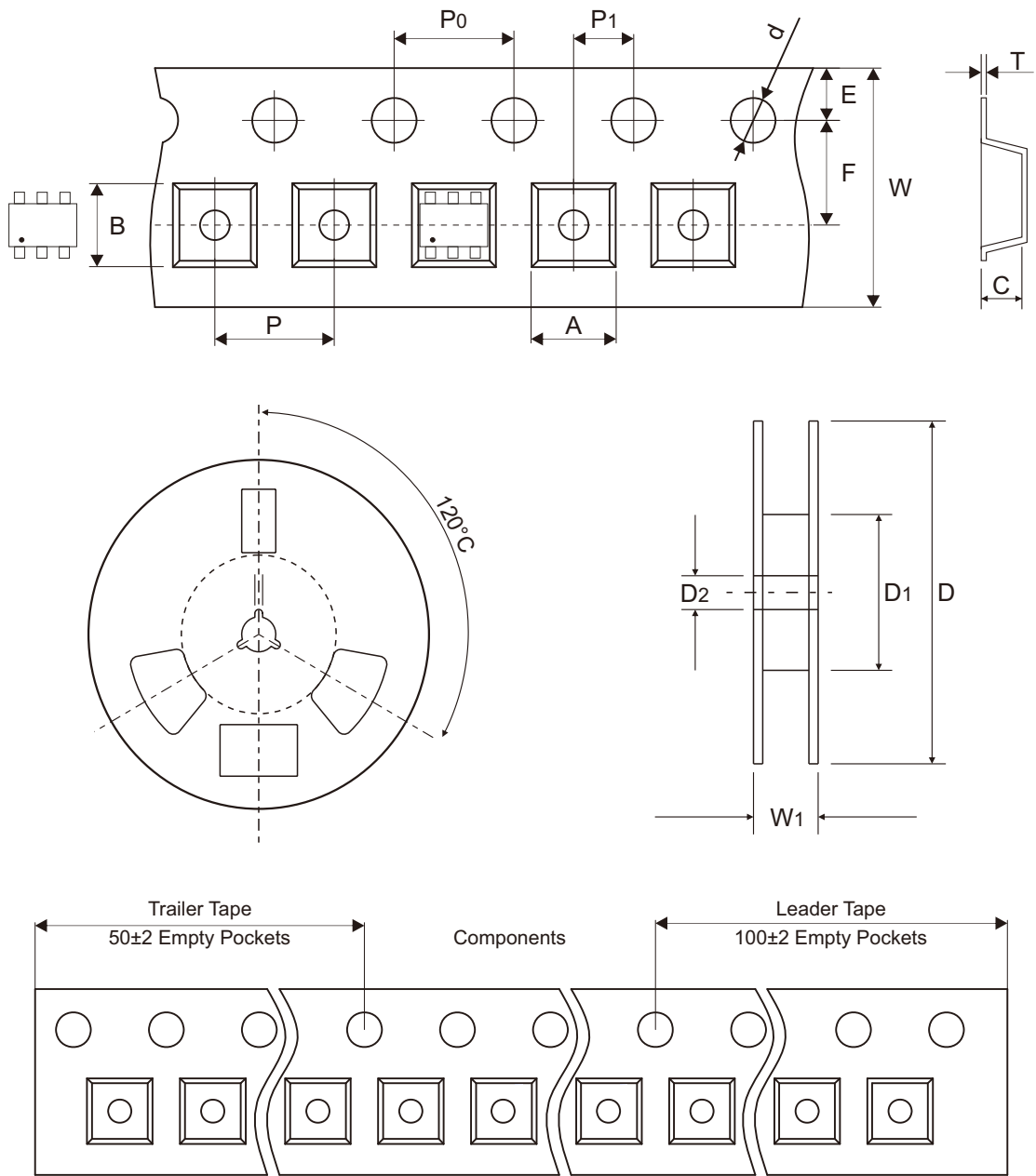


Fig.3 - Power Derating Curve



Reel Taping Specification

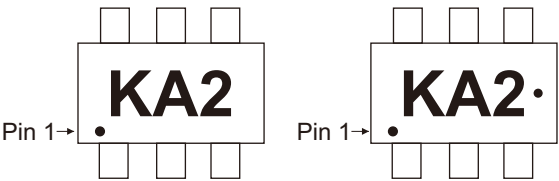


SOT-363	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.40 ± 0.10	2.55 ± 0.10	1.20 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 2.00	50.00 ± 0.50	13.00 ± 0.25
	(inch)	0.094 ± 0.004	0.100 ± 0.004	0.047 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.079	1.969 ± 0.020	0.512 ± 0.010

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 ± 0.50
	(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 ± 0.020

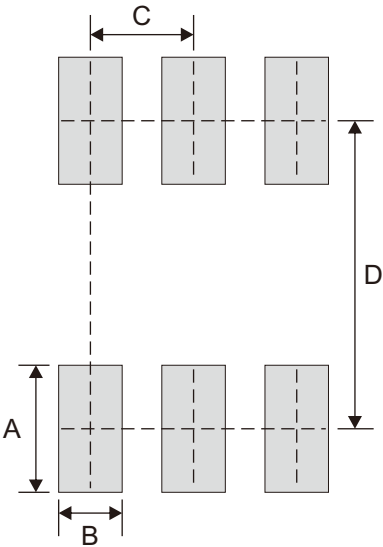
Marking Code

Part Number	Marking Code	
BAS16TW-P2-HF	KA2	KA2·



Suggested P.C.B. PAD Layout

SIZE	SOT-363	
	(mm)	(inch)
A	0.816	0.032
B	0.40	0.016
C	0.65	0.026
D	1.94	0.076



Standard Packaging

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