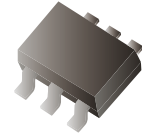


BAV199DW-HF

RoHS Device
Halogen Free



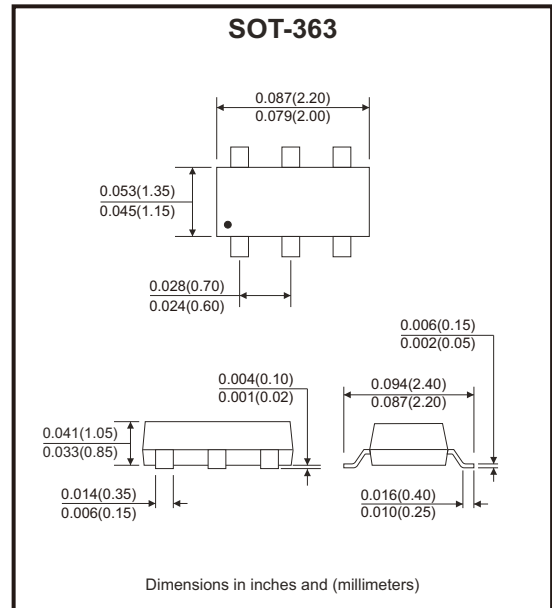
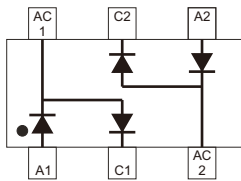
Features

- Fast switching speed.
- Very low leakage current.
- Ultra-small surface mount package.

Mechanical data

- Case: SOT-363, molded plastic.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	85	V
Working peak reverse voltage	V_{RWM}	85	V
DC reverse voltage	V_R	85	V
RMS reverse voltage	V_{RMS}	60	V
Repetitive peak forward current	I_{FRM}	500	mA
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	1	A
Forward continuous current	I_{FM}	160 140	mA
		Single diode Double diode	
Power dissipation	P_D	200	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	625	°C/W
Junction and storage temperature	T_J, 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	$I_R = 100\mu A$	$V_{(BR)}$	85			V
Forward voltage	$I_F = 1mA$	V_F			0.9	V
	$I_F = 10mA$				1.0	
	$I_F = 50mA$				1.1	
	$I_F = 150mA$				1.25	
Reverse current	$V_R = 75V$	I_R			5	nA
	$V_R = 75V, T_J = 150^\circ C$				80	
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}			3	μs

Typical Rating and Characteristic Curves (BAV199DW-HF)

Fig.1 - Power Derating Curve

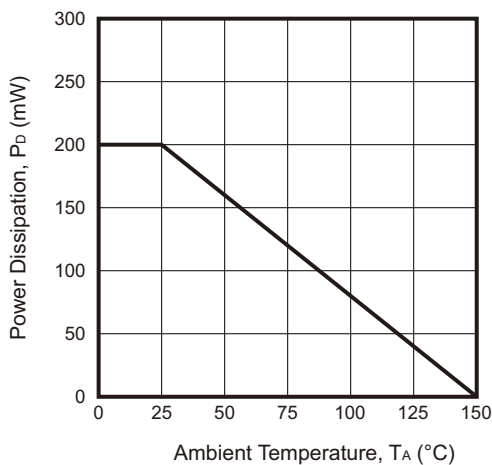


Fig.2 - Current Derating Curve

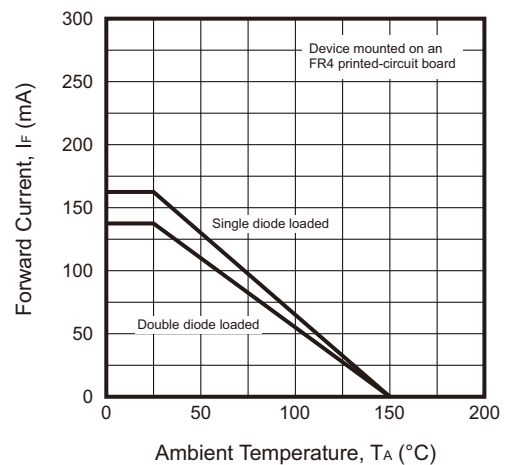


Fig.3 - Typical Forward Characteristics

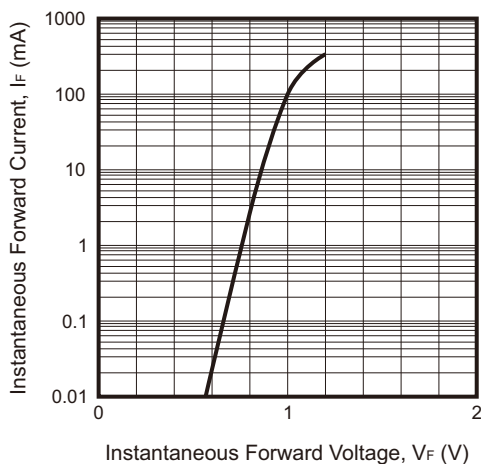
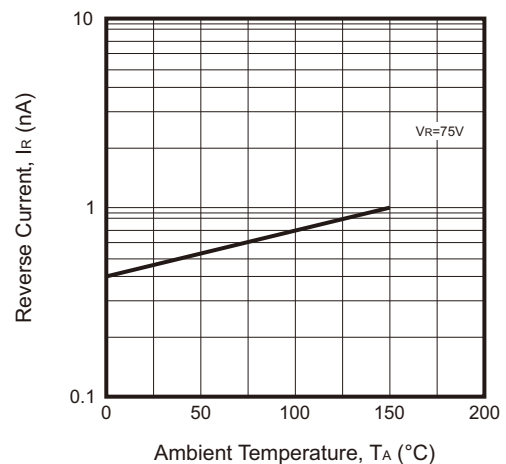
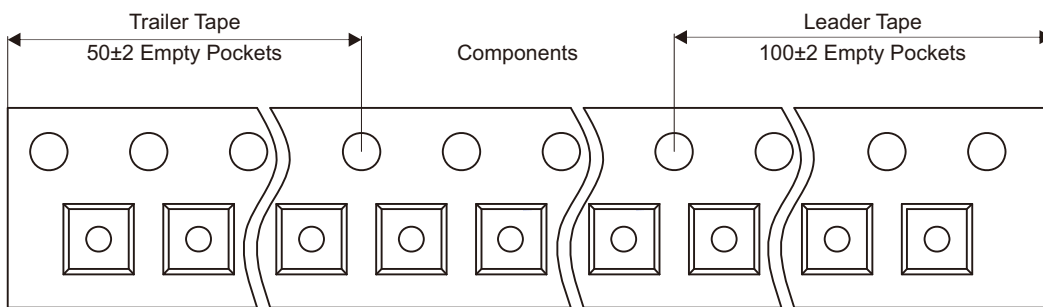
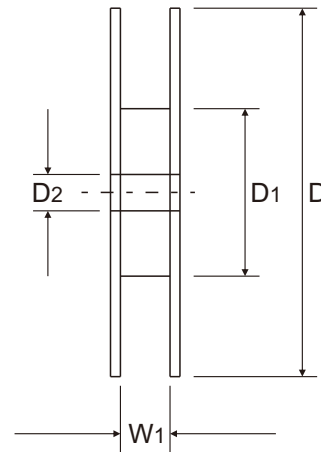
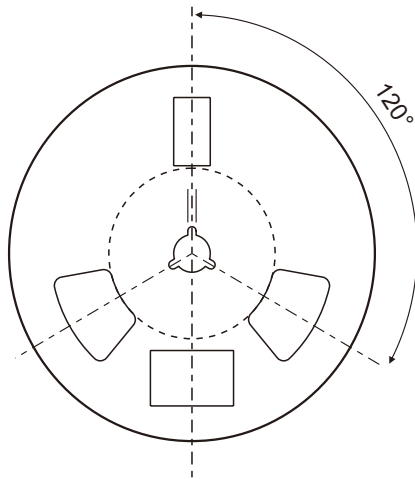
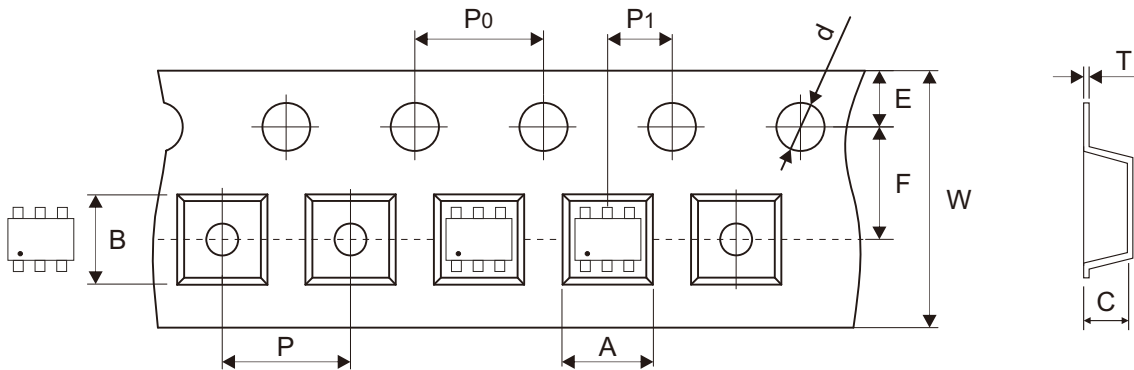


Fig.4 - Typical Reverse Characteristics



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