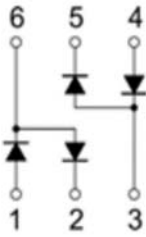


Small-Signal Fast Switching Diodes



SOT-363



Features

- Moisture sensitivity level 1
- Reverse voltage: 75V
- Average forward current : 150mA

Application

- High frequency and low voltage rectifier

Mechanical data

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

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			KJG
Repetitive peak reverse voltage	V_{RRM}	V	75
Forward current	I_F	mA	150
Non-repetitive Surge peak forward current @ $t=8.3\text{ms}$ half-sine wave	I_{FSM}	A	1
Non-repetitive Surge peak forward current @ $t=1\text{ms}$ square wave			1.5
Power dissipation	P_D	mW	200
Junction temperature	T_J	$^\circ\text{C}$	-55 to +150
Storage temperature	T_{STG}	$^\circ\text{C}$	-55 to +150



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■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V _R	V	I _R =0.1mA	75		
Forward voltage	V _{F1}	V	I _F =1mA			0.715
	V _{F2}	V	I _F =10mA			0.855
	V _{F3}	V	I _F =50mA			1.00
	V _{F4}	V	I _F =1000mA			1.25
Reverse leakage current	I _{R1}	uA	V _R =20V			0.025
	I _{R2}	uA	V _R =75V			2.5
Junction capacitance	C _j	pF	V _R =0V, f=1MHz		2	
Reverse recovery time	T _{rr}	ns	I _F =10mA, I _{rr} =0.1I _R , R _L =100Ω		4	

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	625
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	500

Note:

(1) Device mounted on PCB, single-sided copper, with standard footprint



■ Characteristics

Fig 1: P_D - T_a Curve

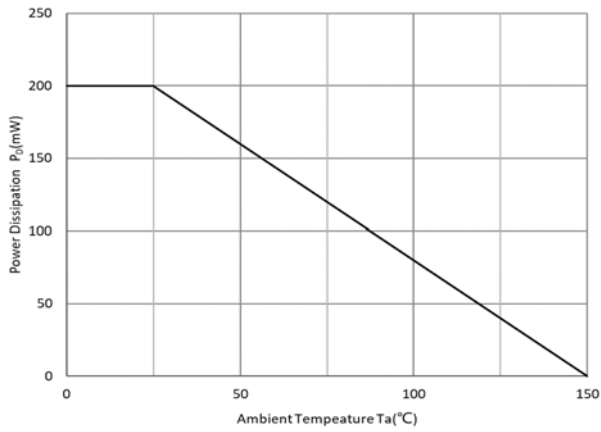


Fig 2: Capacitance Capability

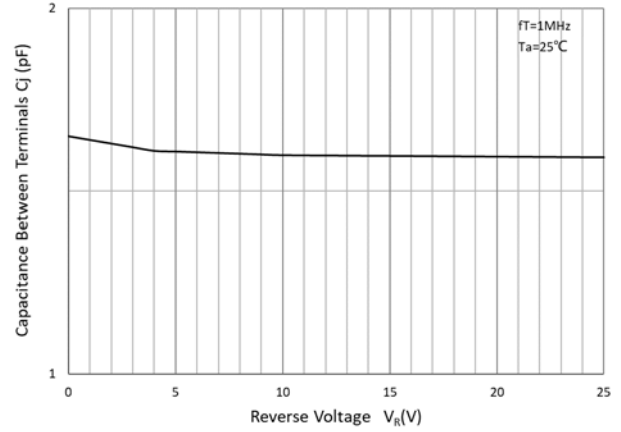


Fig 3: Typical Forward Characteristics

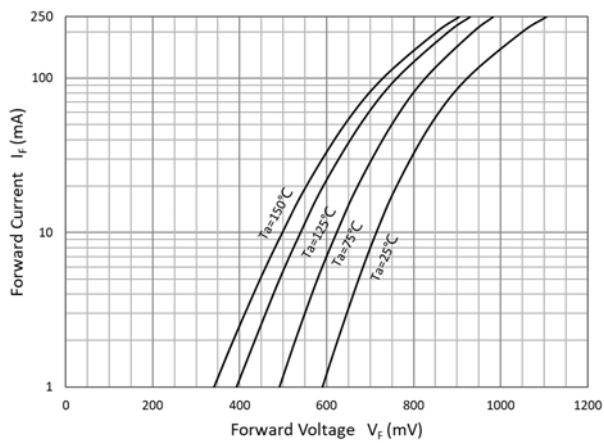
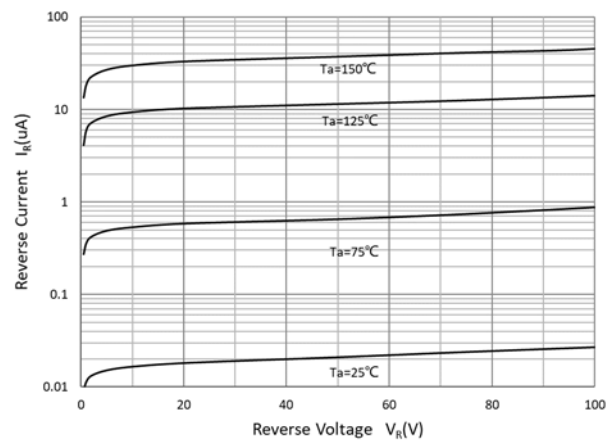


Fig 4: Typical Reverse Characteristics





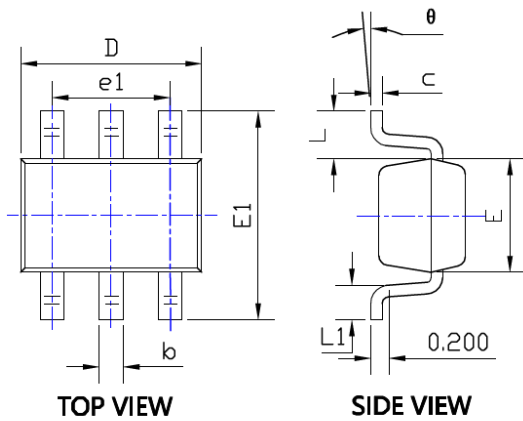
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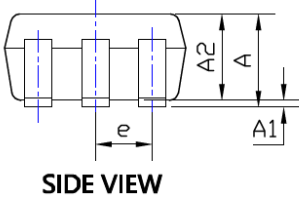
Ordering Information

Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity (pcs)	Delivery mode
BAV99DW	F2	Approximate 0.009	3000	30000	120000	7" reel
BAV99DW	F3	Approximate 0.009	10000	/	210000	7" reel

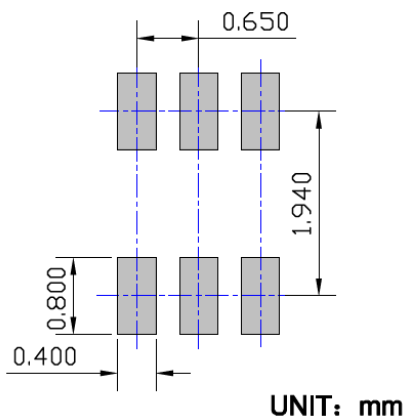
Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	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	0.004	0.010	0.100	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		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°



Suggested Pad Layout





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