

BAW56E6

SURFACE MOUNT SWITCHING DIODES

Voltage	100 V	Power	200 mW
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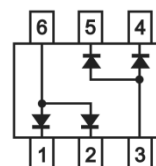
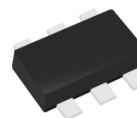
Features

- Fast switching speed.
- Very low leakage current
- Low capacitance
- Surface mount package Ideally Suited for Automatic insertion
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: SOT-563 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0001 ounces, 0.003 grams

SOT-563



Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNITS
Reverse Voltage		V_R	100	V
Peak Reverse Voltage		V_{RM}	100	V
Maximum Average Forward Current		$I_{F(AV)}$	150	mA
Non-repetitive Peak forward current at $T_J(\text{init})=25^\circ\text{C}$	$t_p = 1 \text{ us}$	I_{FSM}	4	A
Power Dissipation		P_D	200	mW
Maximum Junction Capacitance Measured at 1 MHz And Applied $V_R = 0 \text{ V}$		C_J	1.5	pF
Typical Thermal Resistance		$R_{\theta JA}^{(1)}$	625	$^\circ\text{C/W}$
Operating Junction Temperature Range		T_J	-55~150	$^\circ\text{C}$
Storage Temperature Range		T_{STG}	-55~150	$^\circ\text{C}$



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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 1\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.715	V
		$I_F = 10\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.855	
		$I_F = 50\text{ mA}, T_J = 25^\circ\text{C}$	-	-	1	
		$I_F = 150\text{ mA}, T_J = 25^\circ\text{C}$	-	-	1.25	
Reverse Current	I_R	$V_R = 25\text{ V}, T_J = 25^\circ\text{C}$	-	-	0.03	μA
		$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	-	0.5	
Maximum Reverse Recovery Time	$T_{RR}^{(2)}$	---	-	-	4	ns

NOTES:

1. Mounted on a FR4, single-sided copper, with mini pad.
2. Test Condition : $I_F = 10\text{ mA}$ to $I_R = 10\text{ mA}$, Recovery to 1 mA , $R_L = 100\ \Omega$.



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TYPICAL CHARACTERISTIC CURVES

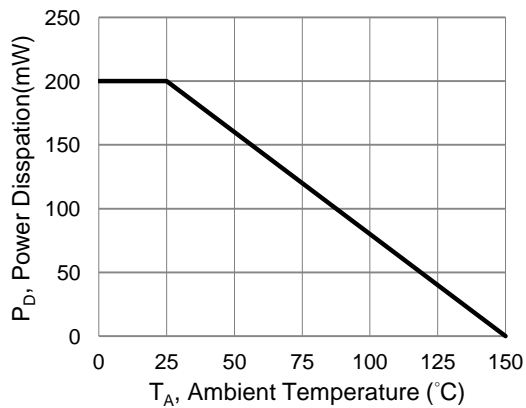


Fig.1 Power Derating Curve

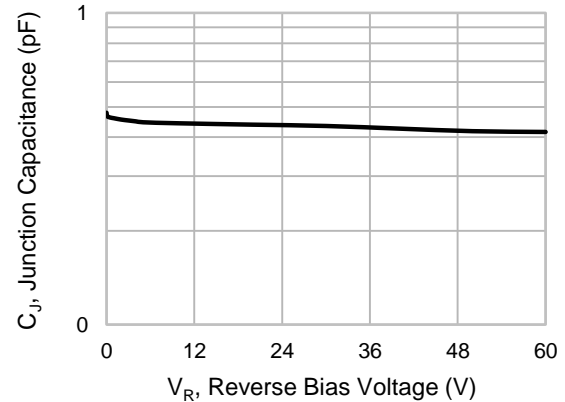


Fig.2 Typical Junction Capacitance

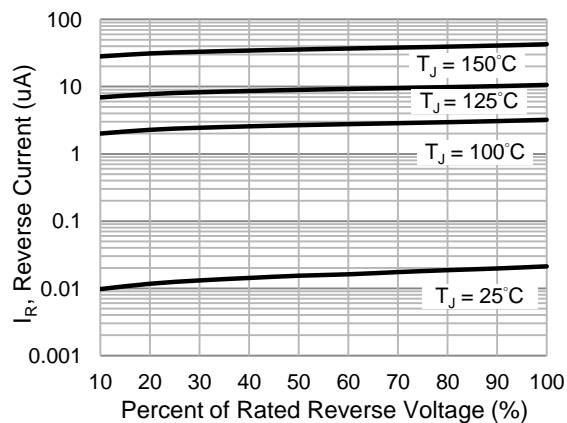


Fig.3 Typical Reverse Characteristics

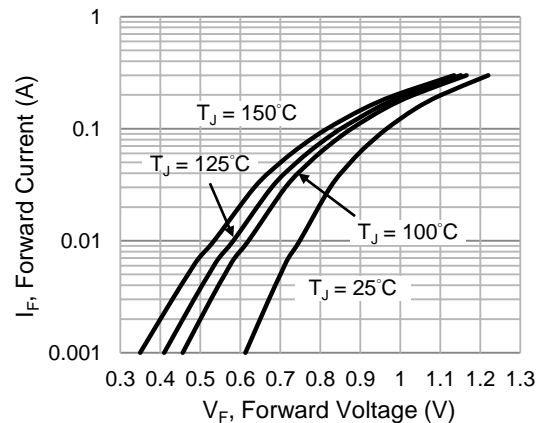


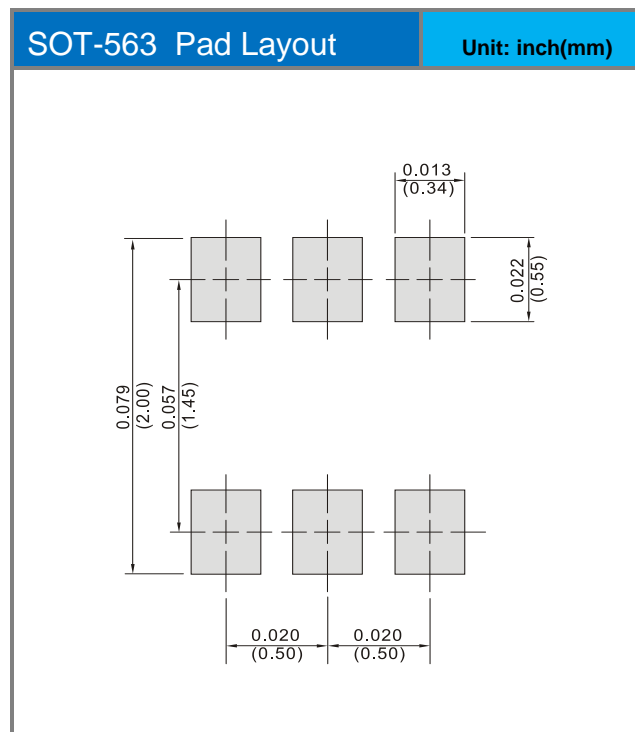
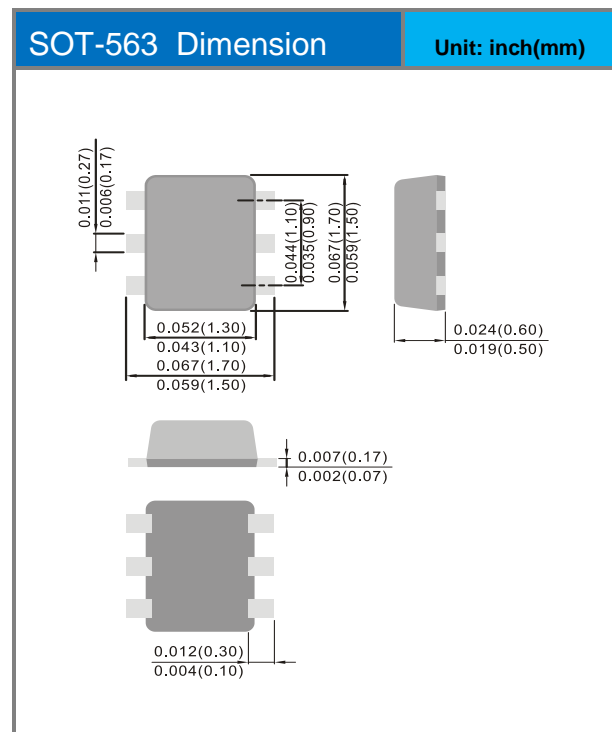
Fig.4 Typical Forward Characteristics

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Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAW56E6_R1_00001	SOT-563	4K / 7" Reel	6E6	Halogen free

Packaging Information & Mounting Pad Layout





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