

BAW56E6

SURFACE MOUNT SWITCHING DIODES

Voltage	100 V	Power	200 mW
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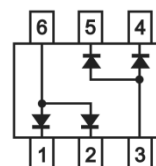
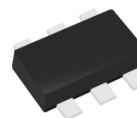
Features

- 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

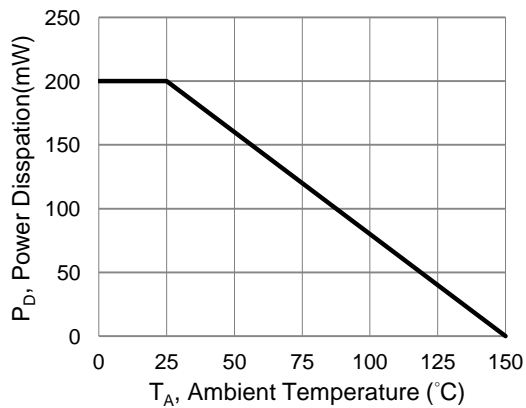


Fig.1 Power Derating Curve

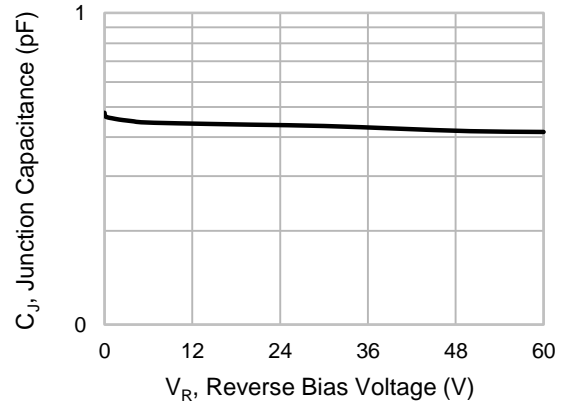


Fig.2 Typical Junction Capacitance

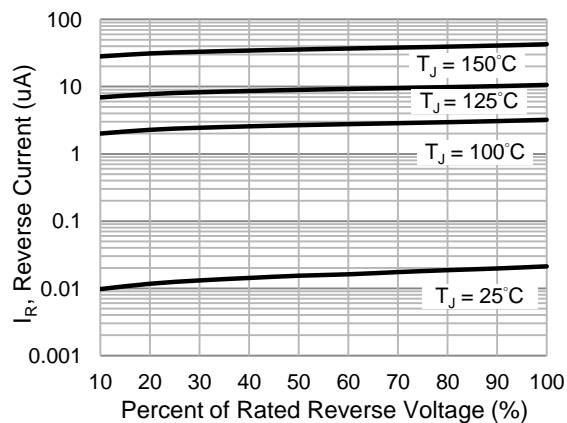


Fig.3 Typical Reverse Characteristics

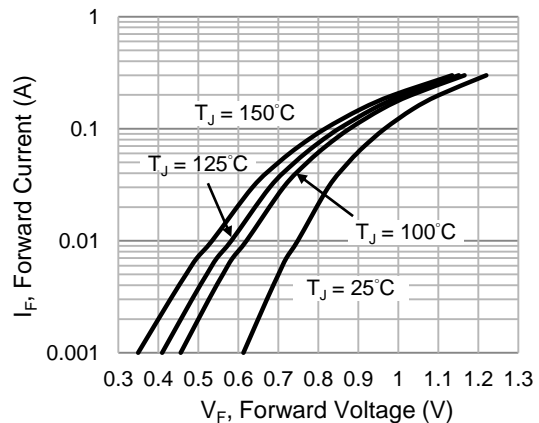


Fig.4 Typical Forward Characteristics

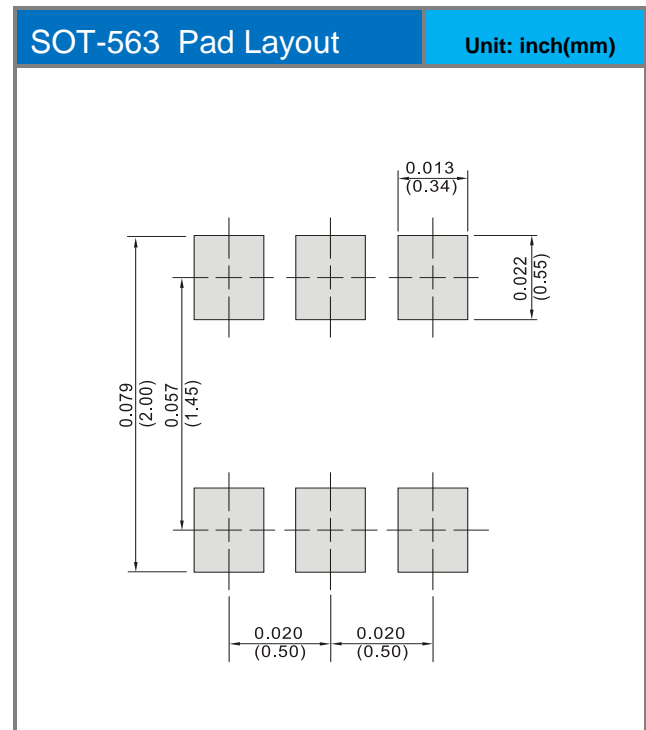
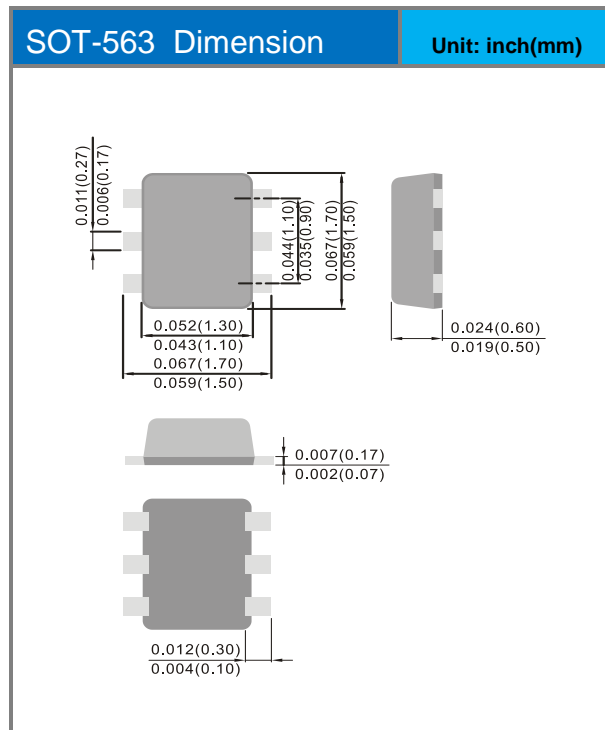


BAW56E6

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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