

## Small Signal Switching Diode

### Features

- Silicon Epitaxial Planar Diode
- Low forward voltage drop
- High forward current capability
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**



94 9367

### Applications

- High speed switch and general purpose use in computer and industrial applications

### Mechanical Data

**Case:** DO-35

**Weight:** approx. 125 mg

**Cathode Band Color:** black

**Packaging Codes/Options:**

TR/10 k per 13" reel (52 mm tape), 50 k/box

TAP/10 k per Ammopack (52 mm tape), 50 k/box

### Parts Table

Part	Ordering code	Type Marking	Remarks
BAW27	BAW27-TR or BAW27-TAP	BAW27	Tape and Reel/Ammopack

### Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Repetitive peak reverse voltage		$V_{RRM}$	75	V
Reverse voltage		$V_R$	60	V
Peak forward surge current	$t_p = 1\text{ }\mu\text{s}$	$I_{FSM}$	4	A
Forward continuous current		$I_F$	600	mA
Average forward current	$V_R = 0$	$I_{FAV}$	300	mA
Power dissipation	$I = 4\text{ mm}, T_L = 45\text{ }^{\circ}\text{C}$	$P_{tot}$	440	mW
	$I = 4\text{ mm}, T_L \leq 25\text{ }^{\circ}\text{C}$	$P_{tot}$	500	mW

### Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

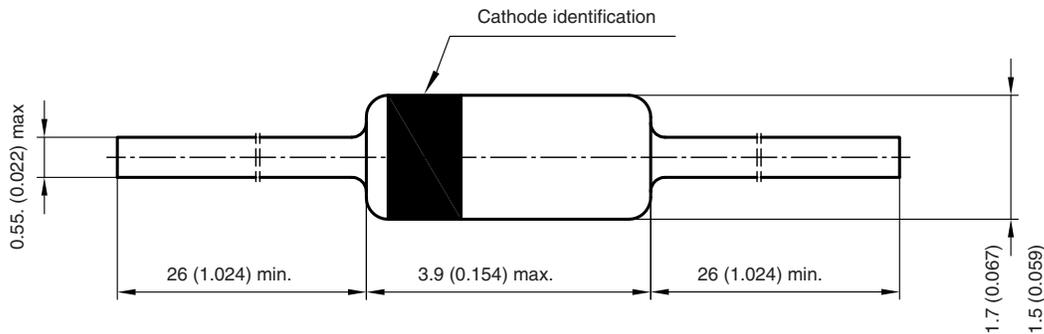
Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air	$I = 4\text{ mm}, T_L = \text{constant}$	$R_{thJA}$	350	K/W
Junction temperature		$T_j$	175	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	- 65 to + 175	$^{\circ}\text{C}$

### Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F = 10\text{ mA}$	$V_F$		670	750	mV
	$I_F = 50\text{ mA}$	$V_F$		800	850	mV
	$I_F = 200\text{ mA}$	$V_F$		950	1000	mV
	$I_F = 400\text{ mA}$	$V_F$		1120	1250	mV
Reverse current	$V_R = 60\text{ V}$	$I_R$			100	nA
	$V_R = 60\text{ V}, T_j = 100\text{ }^{\circ}\text{C}$	$I_R$			50	$\mu\text{A}$
Breakdown voltage	$I_R = 5\text{ }\mu\text{A}, t_p/T = 0.01,$ $t_p = 0.3\text{ ms}$	$V_{(BR)}$	75			V
Diode capacitance	$V_R = 0, f = 1\text{ MHz},$ $V_{HF} = 50\text{ mV}$	$C_D$			4	pF
Reverse recovery time	$I_F = I_R = 10\text{ mA to } 100\text{ mA},$ $i_R = 0.1 \times I_R$	$t_{rr}$			6	ns

### Package Dimensions in millimeters (inches): DO-35



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