

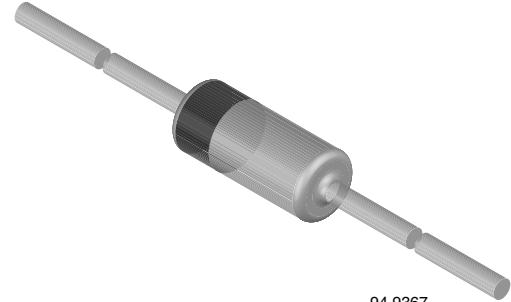
## Small Signal Switching Diode, High Voltage

### Features

- Silicon Planar Diode
- Very low reverse current
- 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

- Protection circuits, delay circuits

### 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
BAY135	BAY135-TR or BAY135-TAP	BAY135	Tape and Reel/Ammopack

### Absolute Maximum Ratings

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

Parameter	Test condition	Symbol	Value	Unit
Peak reverse voltage, non repetitive		$V_{RSM}$	140	V
Repetitive peak reverse voltage		$V_{RRM}$	140	V
Reverse voltage		$V_R$	125	V
Peak forward surge current	$t_p = 1\text{ }\mu\text{s}$	$I_{FSM}$	2	A
Average forward current	$f = 50\text{ Hz}$	$I_{FAV}$	200	mA

### Thermal Characteristics

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

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air	$l = 4\text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	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	$I_F = 100\text{ mA}$	$V_F$			1000	mV
Reverse current	$E \leq 300\text{ lx}$ , $V_R$	$I_R$			3	nA
	$E \leq 300\text{ lx}$ , $V_R$ , $T_j = 125\text{ }^{\circ}\text{C}$	$I_R$			0.5	$\mu\text{A}$
	$E \leq 300\text{ lx}$ , $V_R = 60\text{ V}$	$I_R$			1	nA
Breakdown voltage	$I_R = 5\text{ }\mu\text{A}$ , $t_p/T = 0.01$ , $t_p = 0.3\text{ ms}$	$V_{(BR)}$	140			V
Diode capacitance	$V_R = 0$ , $f = 1\text{ MHz}$	$C_D$			5	pF

### Typical Characteristics

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

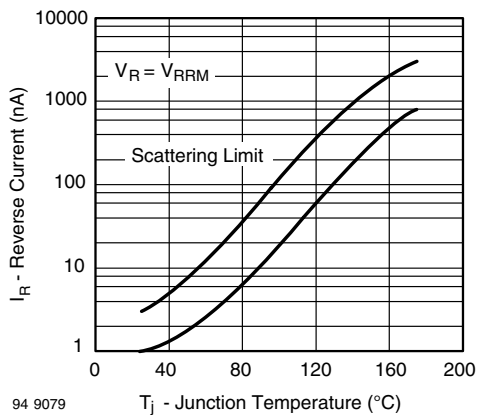


Figure 1. Reverse Current vs. Junction Temperature

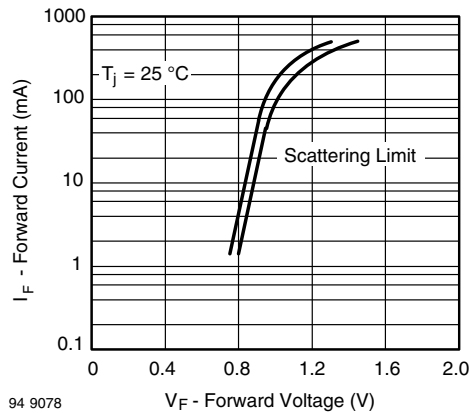
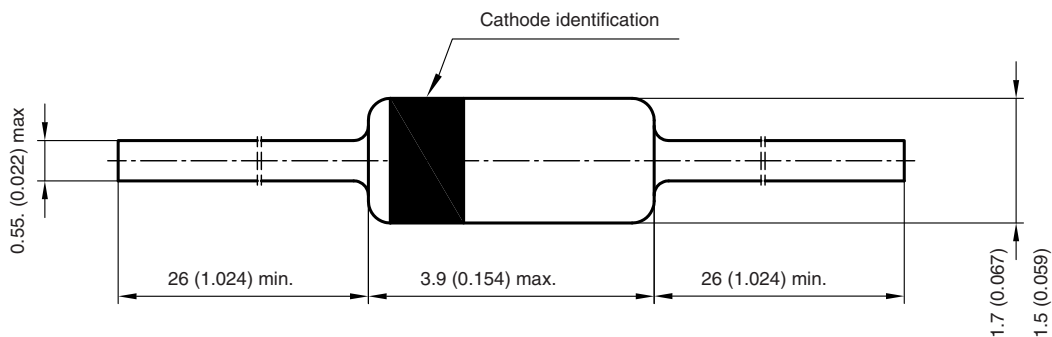


Figure 2. Forward Current vs. Forward Voltage

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



Rev. 6 - Date: 29. January 2007  
 Document no.: 6.560-5004.02-4  
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