Small Signal Fast Switching Diode, High Voltage

FEATURES

- Silicon planar diode
- Very low reverse current
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

HALOGEN FREE

APPLICATIONS

- Protection circuits, delay circuits

ADDITIONAL RESOURCES

3D Models

MECHANICAL DATA

Case: DO-35 (DO-204AH)

Weight: approx. 125 mg

Cathode band color: black

Packaging codes / options:

TAP/10K per ammopack (52 mm tape), 50K/box

PARTS TABLE

PART	ORDERING CODE	TYPE MARKING	CIRCUIT CONFIGURATION	REMARKS
BAY135	BAY135-TAP	BAY135	Single	Ammopack

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		V_{RRM}	140	V
Reverse voltage		V_R	125	V
Peak forward surge current	t_p = 1 µs	I_{FSM}	2	A
Average forward current	f = 50 Hz	$I_{F(AV)}$	200	mA

THERMAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	l = 4 mm, T_L = constant	R_{thJA}	350	K/W
Junction temperature		T_j	175	°C
Storage temperature range		T_{stg}	-65 to +175	°C

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)						
PARAMETER	**TEST CONDITION**	**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Forward voltage	I_F = 30 mA	V_F			1	V
Reverse current	E ≤ 300 lx, V_R = 60 V	I_R			3	nA
	E ≤ 300 lx, V_R, T_j = 125 °C	I_R			0.5	µA
	E ≤ 300 lx, V_R = 60 V	I_R			1	nA
Breakdown voltage	I_R = 5 µA, t_p/T = 0.01, t_p = 0.3 ms	$V_{(BR)}$	140			V
Diode capacitance	V_R = 0 V, f = 1 MHz,	C_D			5	pF

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

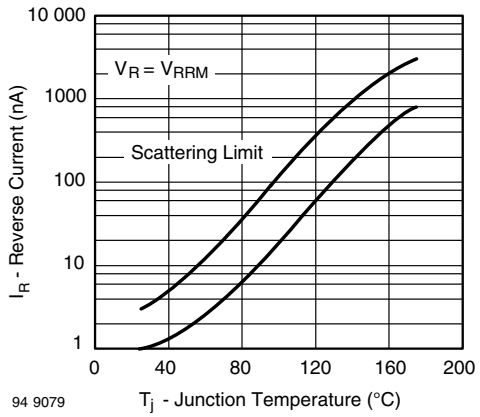


Fig. 1 - Reverse Current vs. Junction Temperature

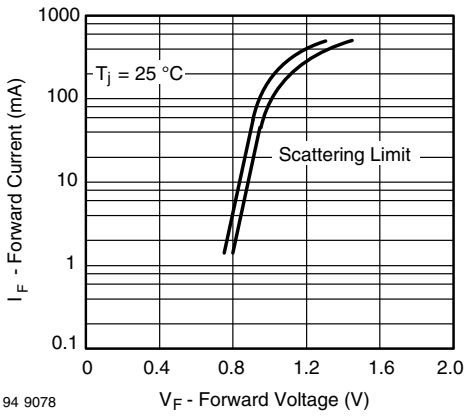
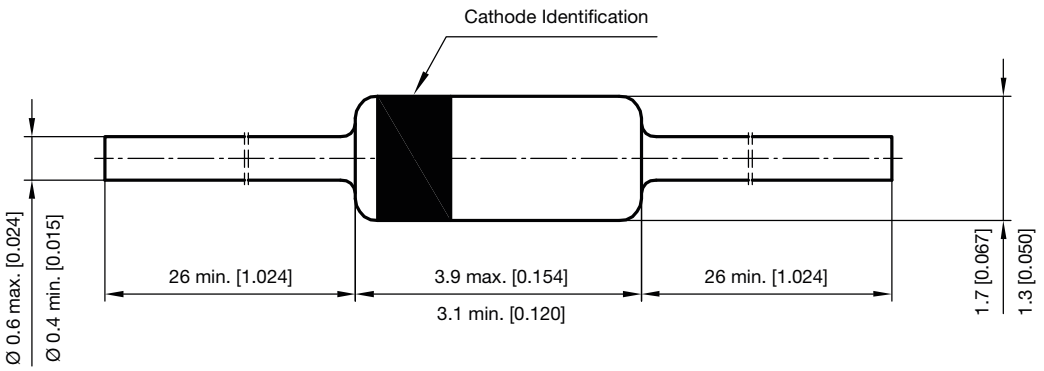


Fig. 2 - Forward Current vs. Forward Voltage

PACKAGE DIMENSIONS in millimeters (inches): DO-35 (DO-204AH)



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