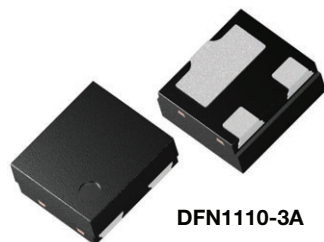
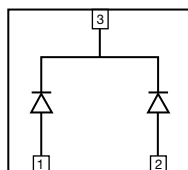


Small Signal Fast Switching Diode


DFN1110-3A


FEATURES

- Silicon epitaxial planar diode
- Fast switching diode
- Leadless ultra small DFN1110-3A package (1.1 mm x 1.0 mm x 0.45 mm)
- Surface-mounted device (SMD) plastic package with visible and sidewall plated / wettable flanks
- Soldering can be checked by standard visual inspection. No X-ray inspection necessary to meet automotive AOI requirements
- AEC-Q101 qualified available
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



LINKS TO ADDITIONAL RESOURCES



3D Models



SPICE Models



Parametric Search



Marking



Application Notes



Order Samples

MECHANICAL DATA

Case: DFN1110-3A

Weight: 1.43 mg

Molding compound flammability rating: UL 94 V-0

Terminals: high temperature soldering guaranteed:
peak temperature max. 260 °C

Packaging codes / options:

08/10K per 7" reel (8 mm tape)

PARTS TABLE

PART	ORDERING CODE	AEC-Q101 QUALIFIED	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAV70L	BAV70L-G3-08	No	Common cathode	JA	Tape and reel
	BAV70L-HG3-08	Yes			

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V_R	100	V
Forward current	Infinite heatsink	I_F	300	mA
Non repetitive forward current ⁽¹⁾	$t_p = 1\text{ }\mu\text{s}$	I_{FSM}	9	A
	$t_p = 1\text{ ms}$		1.7	
	$t_p = 1\text{ s}$		0.8	
Repetitive peak forward current	$T_L = 100\text{ }^{\circ}\text{C}$, $t_p \leq 1\text{ ms}$, $D = 0.05$	I_{FRM}	100	mA
Power dissipation	Infinite heatsink	P_{tot}	625	mW

Note

⁽¹⁾ Square wave, $T_j = 25\text{ }^{\circ}\text{C}$ prior to surge

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

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to lead	Infinite heatsink	R_{thjL}	200	K/W
Maximum junction temperature		$T_{j\text{ max.}}$	150	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-55 to +150	$^{\circ}\text{C}$
Operating temperature range		T_{op}	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Forward voltage	$I_F = 150\text{ mA}$	V_F		1.250	V
	$I_F = 50\text{ mA}$			1.0	V
	$I_F = 10\text{ mA}$			0.86	V
	$I_F = 1\text{ mA}$			0.715	V
Leakage current	$V_R = 80\text{ V}$	I_R		500	nA
	$V_R = 80\text{ V}, T_J = 150\text{ }^{\circ}\text{C}$	I_R		100	μA
	$V_R = 100\text{ V}$	I_R		1	μA
Diode capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$	C_D	0.36	2	pF
Reverse recovery time	$I_F = 10\text{ mA}, I_R = 10\text{ mA}, i_R = 1\text{ mA}$	t_{rr}		4	ns

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

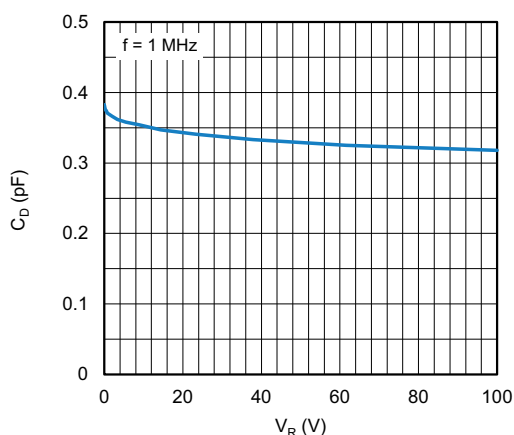


Fig. 1 - Typical Capacitance vs. Reverse Voltage

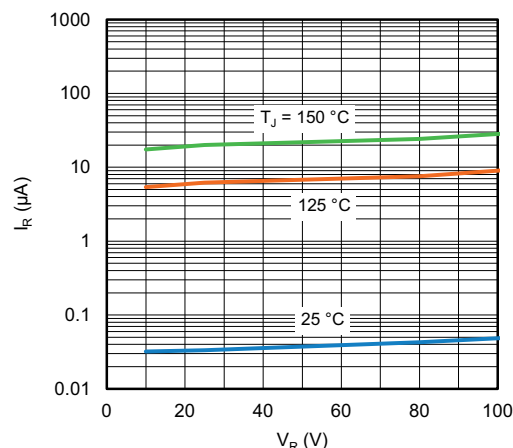


Fig. 3 - Typical Reverse Leakage Current vs. Reverse Voltage

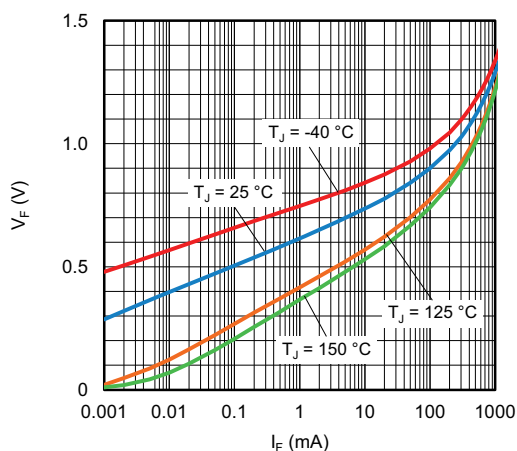
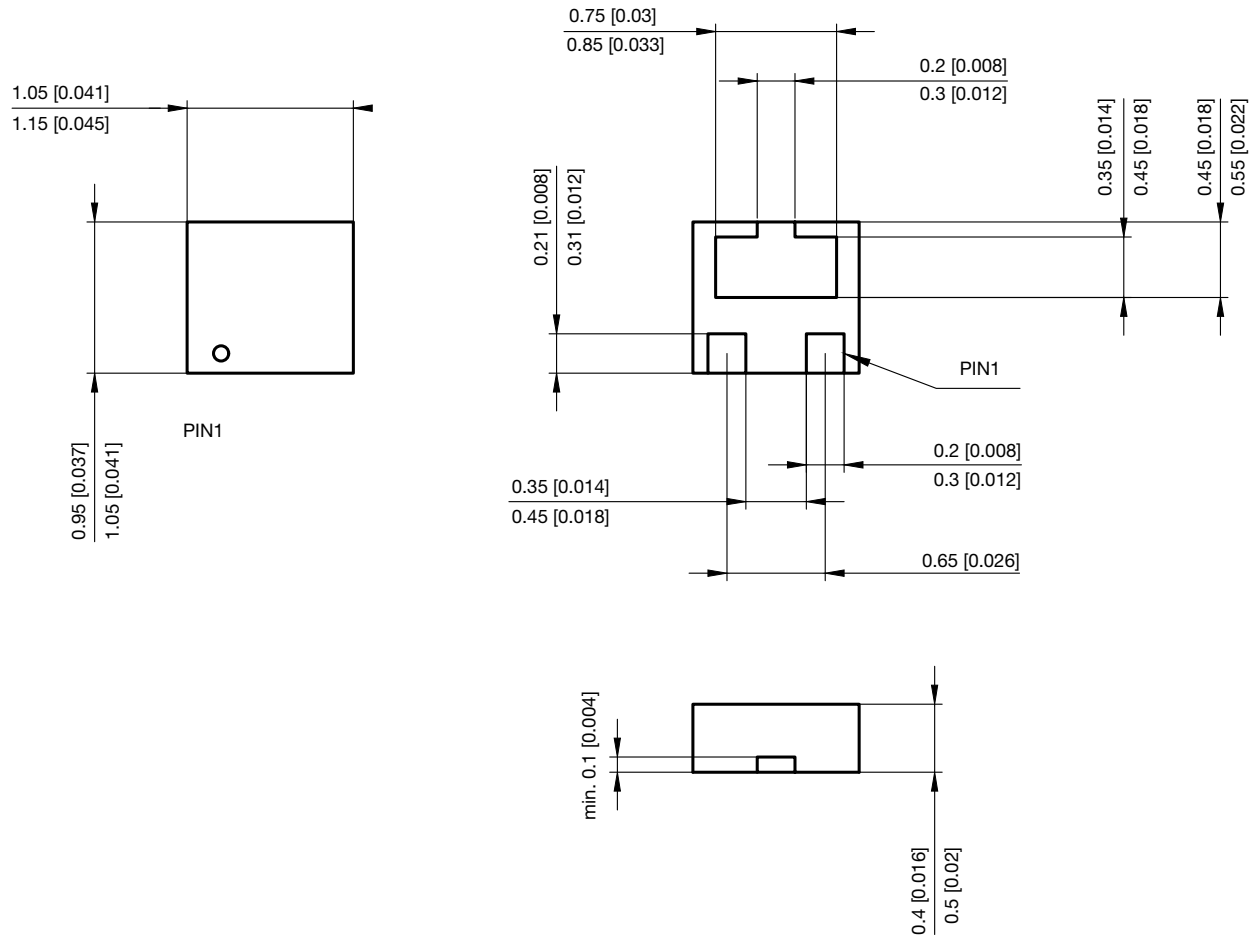
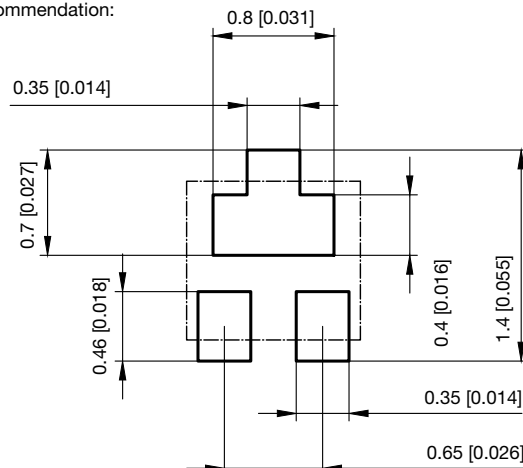


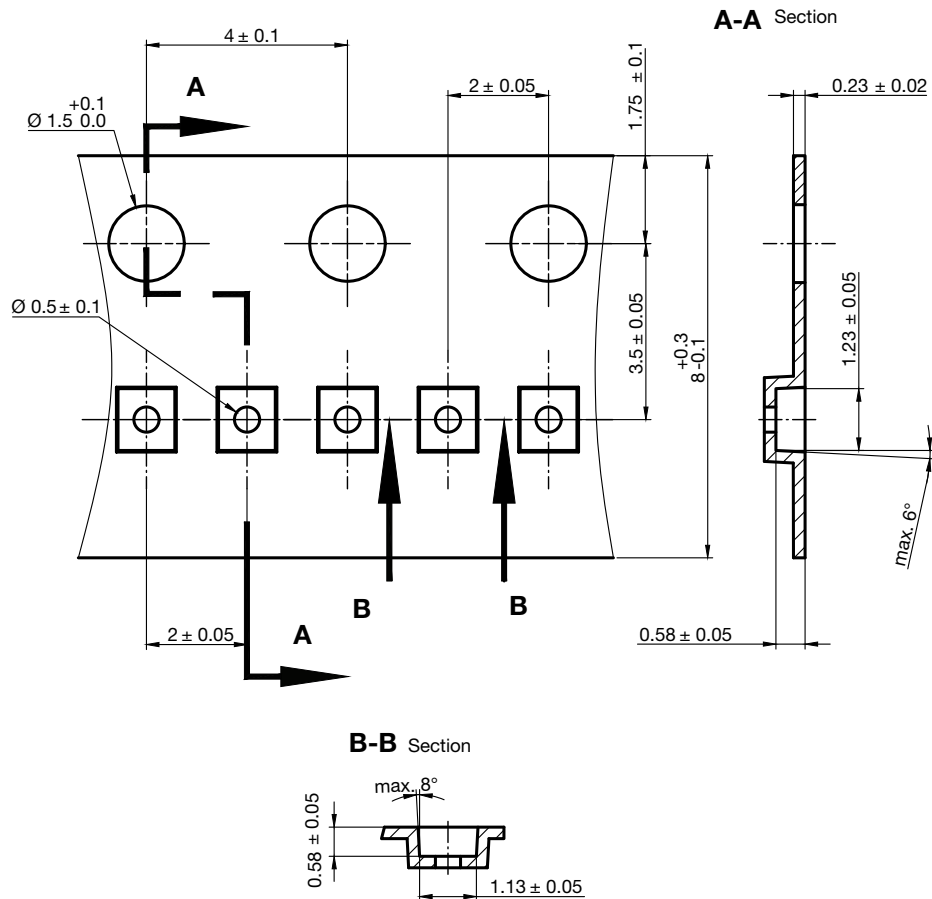
Fig. 2 - Typical Forward Voltage vs. Forward Current

PACKAGE DIMENSIONS in millimeters: **DFN1110-3A**


foot print recommendation:



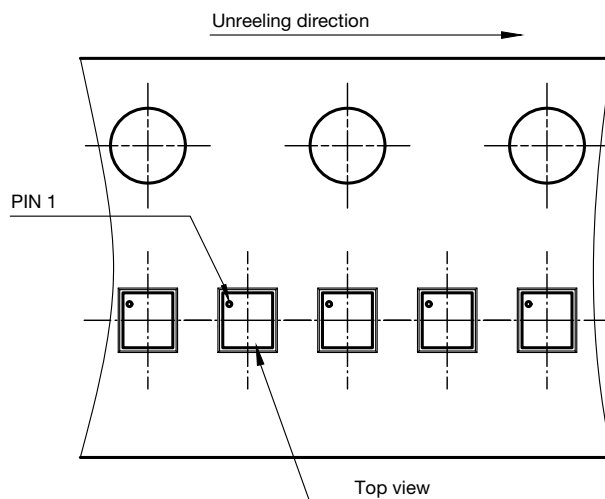
Document no.: S8-V-3906.04-060 (4)
 Created - Date: 25. Sept. 2018
 Rev.2 - Date: 03. June 2020

CARRIER TAPE DFN11110-3A


surface resistance: $10^5 - 10^{11} \frac{\text{OHMS}}{\text{SQ}}$

Cumulative tolerances of 10 sprocket holes is $\pm 0.2\text{mm}$

S8-V-3906.04-065 (4)
created 28.10.2019

ORIENTATION IN CARRIER DFN11110-3A


S8-V-3906.04-066 (4)
created 28.10.2019



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