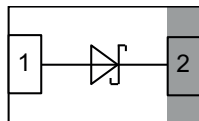


Small Signal Schottky Diode



LINKS TO ADDITIONAL RESOURCES



3D Models



Application Notes

MECHANICAL DATA

Case: DFN1006-2A

Weight: 0.83 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)

FEATURES

- This diode features very low turn-on voltage and fast switching
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- Leadless ultra small DFN1006-2A package (1 mm × 0.6 mm × 0.45 mm)
- Power dissipation better than SOT-23
- 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
- Base P/N-G3 - green, commercial grade
- Base P/N-HG3 - green, AEC-Q101 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

PARTS TABLE

PART	ORDERING CODE	AEC-Q101 QUALIFIED	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAS70L	BAS70L-G3-08	no	Single	GA	Tape and reel
BAS70L	BAS70L-HG3-08	yes	Single	GA	Tape and reel

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

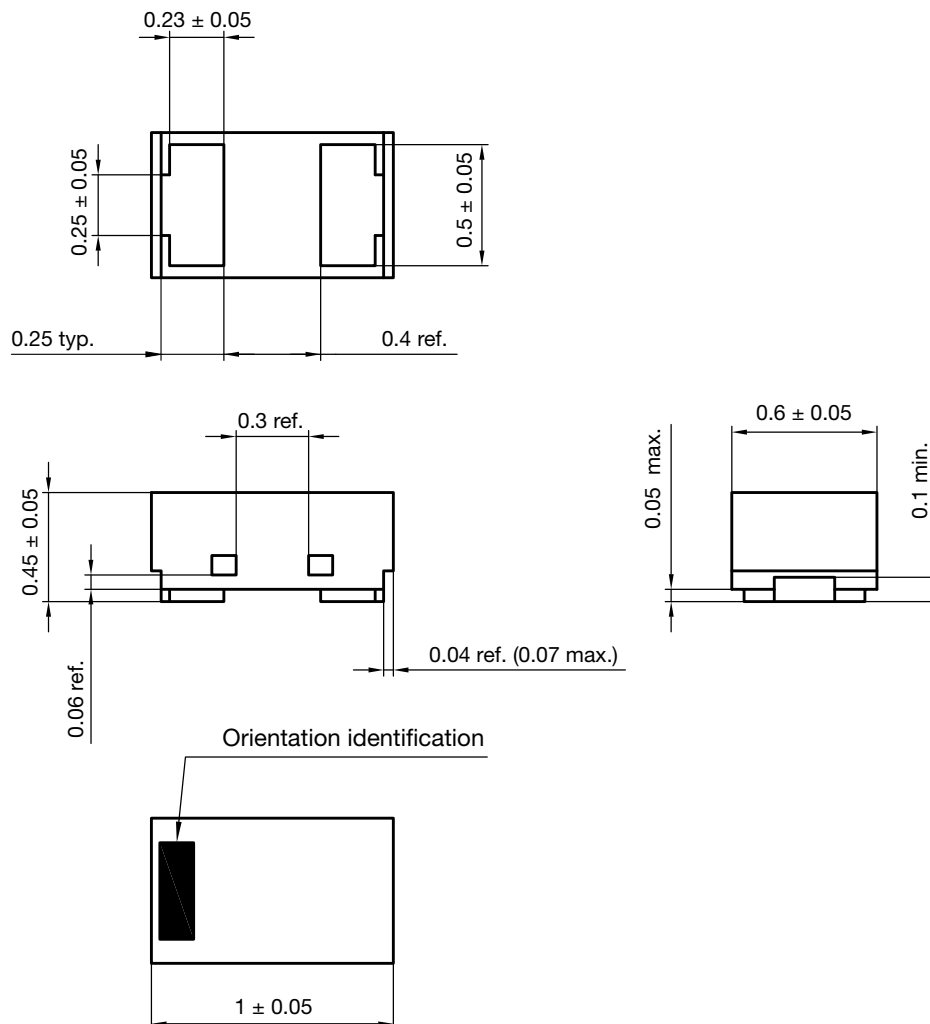
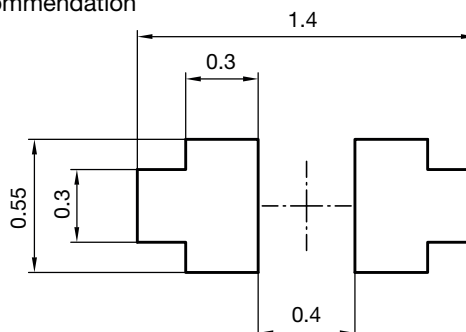
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V_R	70	V
Forward current	on FR-4 board with recommended soldering footprint	I_F	200	mA
Non-repetitive peak forward current	$T_J = 25\text{ °C}$, $t_p = 10\text{ ms}$	I_{FSM}	500	mA
Power dissipation	on FR-4 board with recommended soldering footprint	P_{tot}	300	mW
	$R_{thJA} = 100\text{ K/W}$		1250	mW
ESD immunity	Human Body Model (HBM)	V_{ESD}	2000	V

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

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	according to JEDEC® 51-3 on FR-4 board with recommended soldering footprint	R_{thJA}	420	K/W
Thermal resistance junction to lead		R_{thJL}	100	K/W
Maximum junction temperature		$T_{J\text{ max.}}$	150	°C
Storage temperature range		T_{stg}	-55 to +150	°C
Operating temperature range		T_{op}	-55 to +150	°C

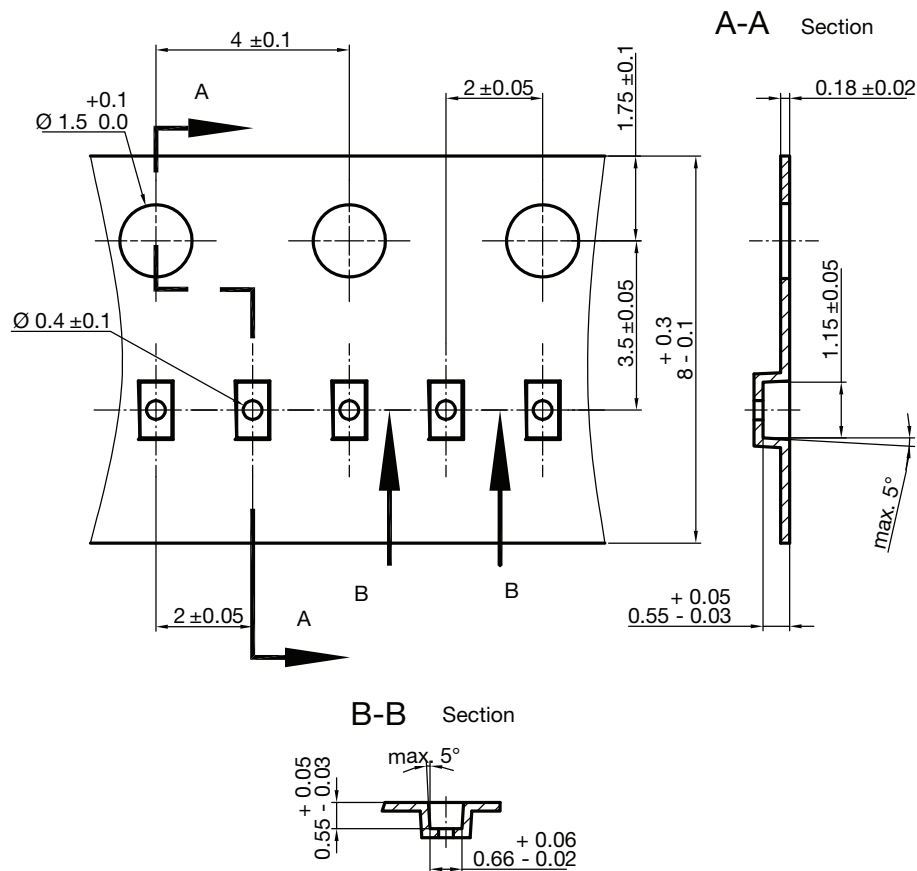
ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ °C}$, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	MAX.	UNIT
Leakage current	$V_R = 50\text{ V}$, $T_J = 25\text{ °C}$	I_R	100	nA
Forward voltage	$I_F = 1\text{ mA}$	V_F	410	mV
	$I_F = 15\text{ mA}$		1000	mV
Diode capacitance	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_D	2	pF

PACKAGE DIMENSIONS in millimeters: **DFN1006-2A**

Footprint recommendation


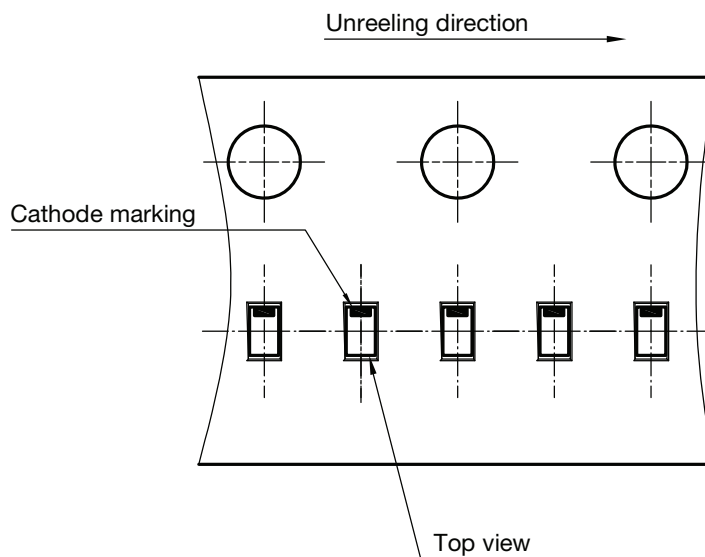
Document no.: S8-V-3906.04-059 (4)
 Created - Date: 11-Jul-2018
 Rev.6 - Date: 12-Nov-2024

23191

CARRIER TAPE DFN1006-2A


S8-V-3906.04-063 (4)
 created 28.10.2019

surface resistance: $10^5 - 10^{11} \frac{\text{OHMS}}{\text{SQ}}$
 Cumulative tolerances of 10 sprocket holes is $\pm 0.2 \text{ mm}$

ORIENTATION IN CARRIER TAPE DFN1006-2A


S8-V-3906.04-064 (4)
 created 28.10.2019



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