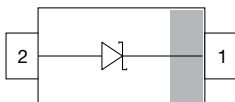
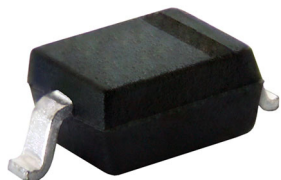


Small Signal Schottky Diode



FEATURES

- Schottky diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing
- AEC-Q101 qualified available
- Base P/N-E3 - RoHS-compliant, commercial grade
- Base P/N-HE3_A - RoHS-compliant, AEC-Q101 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE
GRADE
Available



RoHS
COMPLIANT

LINKS TO ADDITIONAL RESOURCES



MECHANICAL DATA

Case: SOD-323

Weight: approx. 4 mg

Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box

08/3K per 7" reel (8 mm tape), 15K/box

PARTS TABLE

PART	ORDERING CODE	AEC-Q101 QUALIFIED	TYPE MARKING	CIRCUIT CONFIGURATION	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY
BAS170WS	BAS170WS-E3-08	no	7D	Single	3 000 (8 mm tape on 7" reel)	15 000
	BAS170WS-HE3_A-08	yes				
	BAS170WS-E3-18	no			10 000 (8 mm tape on 13" reel)	10 000
	BAS170WS-HE3_A-18	yes				

PACKAGE

PACKAGE NAME	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
SOD-323	4 mg	UL 94 V-0	MSL 1 (according J-STD-020)	Peak temperature max. 260 °C

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

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		V_{RRM}	70	V
Forward continuous current		I_F	70	mA
Surge forward current	$t_p < 1\text{ s}$	I_{FSM}	600	mA
Power dissipation ⁽¹⁾		P_{tot}	150	mW

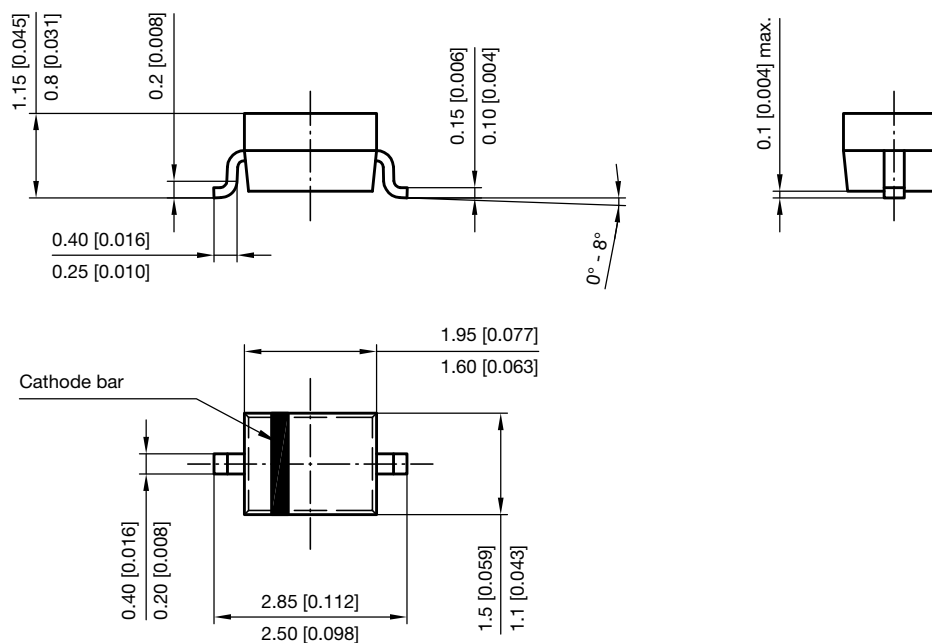
Note

⁽¹⁾ Infinite heatsink

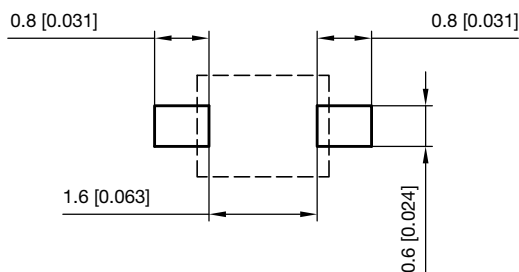
THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ °C}$, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	infinite heatsink	R_{thJA}	650	K/W
Junction temperature		T_j	125	°C
Operating temperature range		T_{op}	-55 to +125	°C
Storage temperature range		T_{stg}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	$I_R = 10\text{ }\mu\text{A}$ (pulsed)	$V_{(BR)}$	70			V
Leakage current	$V_R = 50\text{ V}$	I_R			0.1	μA
	$V_R = 70\text{ V}$	I_R			10	μA
Forward voltage	$I_F = 1\text{ mA}$	V_F		375	410	mV
	$I_F = 10\text{ mA}$	V_F		705	750	mV
Forward voltage ⁽¹⁾	$I_F = 15\text{ mA}$	V_F		880	1000	mV
Diode capacitance	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_D		1.5	2	pF
Differential forward resistance	$I_F = 5\text{ mA}$, $f = 10\text{ kHz}$	r_f		34		Ω

Note
⁽¹⁾ Pulse test; $t_p \leq 300\text{ }\mu\text{s}$
PACKAGE DIMENSIONS in millimeters (inches): **SOD-323**


Footprint recommendation:



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17443



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