

SMD SWITCHING DIODES

DESCRIPTION

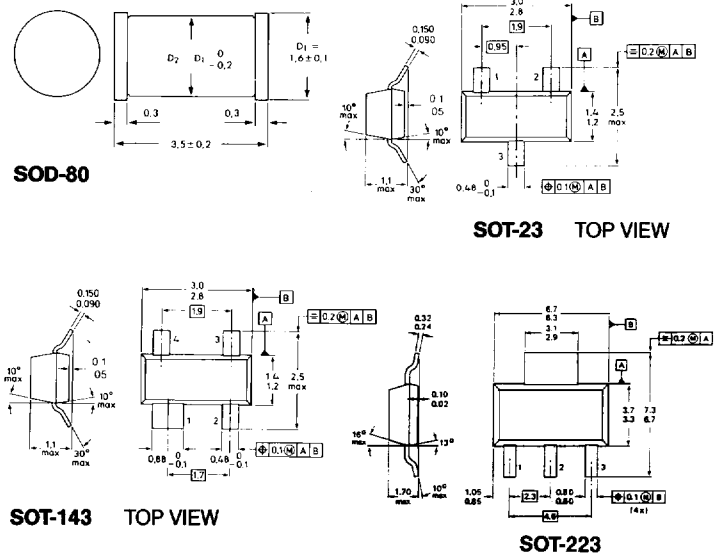
Philips Components diodes for switching applications combine the highest quality standards with state-of-the-art production equipment to fulfill the need for generic, low-cost devices. These switching diodes offer a broad range of current ratings, reverse breakdown voltages and switching specifications to address a variety of circuit requirements. They are offered in a choice of surface mount packages, providing the designer with alternatives for different power requirements, circuit board substrate materials, and assembly processing techniques.

FEATURES

- Reverse breakdown voltages up to 200V
- Switching times as low as 2 ns
- Dual diodes in SOT-23 and SOT-143
- SOD-80 for low cost, hermetic glass packaging

MECHANICAL DATA

(Dimensions in mm)



Datasheet.Live

SMD SWITCHING DIODES

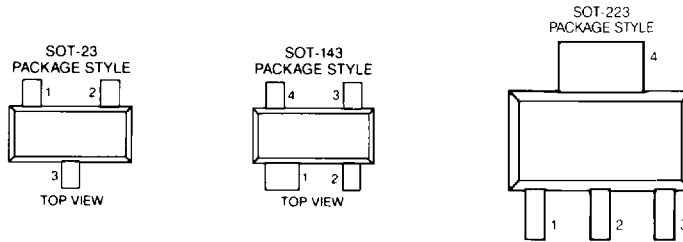
ELECTRICAL SPECIFICATIONS

TYPE	PACKAGE	RATINGS		V _F		t _{rr(max)} ns	C _{d(max)} pF	PINOUT
		V _R V	I _F mA	mV	@I _F mA			
BAS16	SOT-23	75	250	1240	150	6	2	H
BAS19	SOT-23	100	200	1000	100	50	5	H
BAS20	SOT-23	150	200	1000	100	50	5	H
BAS21	SOT-23	200	200	1000	100	50	5	H
BAS28*	SOT-143	75	250	1000	100	50	5	J
BAS29	SOT-23	90	250	900	100	50	35	H
BAS31*	SOT-23	90	250	900	100	50	35	K
BAS32L	SOD-80	75	200	1000	100	4	2	—
BAS35*	SOT-23	90	100	900	100	50	35	L
BAS56*	SOT-143	60	200	1000	200	6	2.5	J
BAV23*	SOT-143	200	200	1000	100	50	5	J
BAV23S*	SOT-223	200	200	1000	100	50	5	K
BAV70*	SOT-23	70	250	1250	150	6	1.5	M
BAV74*	SOT-23	50	100	1000	100	4	2	M
BAV99*	SOT-23	70	250	1250	150	6	1.5	K
BAV100	SOD-80	50	250	1000	100	50	5	—
BAV101	SOD-80	100	250	1000	100	50	5	—
BAV102	SOD-80	150	250	1000	100	50	5	—
BAV103	SOD-80	200	250	1000	100	50	5	—
BAV105	SOD-80	60	600	1000	200	6	2	—
BAW56*	SOT-23	70	250	1250	150	6	2	L
PMBD914	SOT-23	100	200	1000	10	15	4	H
PMBD2835*	SOT-23	35	100	1200	100	15	4	L
PMBD2836*	SOT-23	75	100	1200	100	15	4	L
PMBD2837*	SOT-23	35	100	1200	100	15	4	M
PMBD2838*	SOT-23	75	100	1200	100	15	4	M
PMBD6050	SOT-23	70	200	1100	100	15	2.5	H
PMBD6100*	SOT-23	70	200	1100	100	15	2.5	M
PMBD7000*	SOT-23	100	200	1100	100	15	1.5	K
PMLL4148	SOD-80	75	200	1000	100	4	4	—
PMLL4150	SOD-80	50	300	920	100	4	2.5	—
PMLL4151	SOD-80	75	200	1000	50	2	2	—
PMLL4153	SOD-80	75	200	880	20	2	2	—
PMLL4446	SOD-80	75	200	1000	100	4	4	—
PMLL4448	SOD-80	75	200	1000	100	4	4	—

*Dual Diode

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PINOUT DIAGRAMS



	PIN 1	PIN 2	PIN 3	PIN 4
PINOUT H: SOT-23	N.C.	A	K	—
PINOUT J: SOT-143	K1	K2	A2	A1
PINOUT K: SOT-23	K1	A2	K ₂ ,A ₁	—
PINOUT K: SOT-223	K1	A2	K ₂ ,A ₁	N.C.
PINOUT L: SOT-23	K1	K2	A ₁ ,A ₂	—
PINOUT M: SOT-23	A1	A2	K ₁ ,K ₂	—

MARKING CODES

Type No.	Code	Type No.	Code	Type No.	Code	Type No.	Code
BAS16	A6	BAS31	L21	BAV74	JA	PMBD2837	A5
BAS19	JP	BAS35	L22	BAV99	A7	PMBD2838	A6
BAS20	JR	BAS56	L51	BAW56	A1	PMBD6050	5A
BAS21	JS	BAV23	L30	PMBD914	5D	PMBD6100	5B
BAS28	JT	BAV23S	L21	PMBD2835	A3	PMBD7000	5G
BAS29	L20	BAV70	A4	PMBD2836	A2		

For the following types in SOD-80 packaging, colored stripes identify the device type and also identify the cathode end of the diode:

Type No.	Stripe Color	Type No.	Stripe Color	Type No.	Stripe Color
BAS32L	*	BAV103	Green and Orange	PMLL4151	Black
BAV100	Green and Black	BAV105	Green	PMLL4153	Black
BAV101	Green and Brown	PMLL4148	Black	PMLL4446	Black
BAV102	Green and Red	PMLL4150	Black	PMLL4448	Black

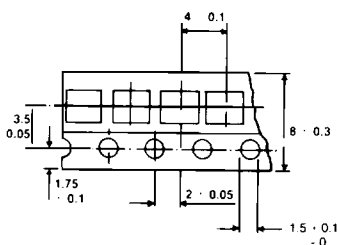
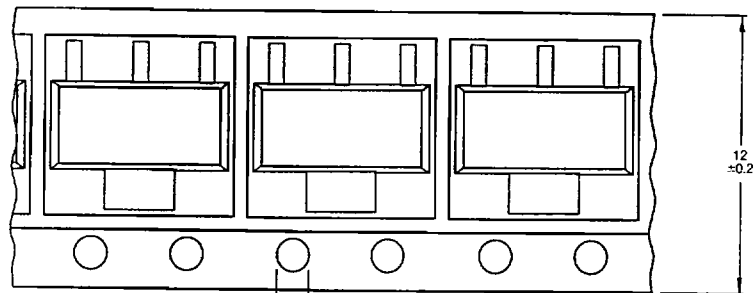
*See individual device data sheet.

TAPE AND REEL SPECIFICATIONS

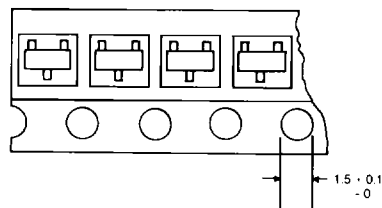
(Dimensions in mm)

SM Package	Devices per reel	Reel Size (in)	Tape Width (mm)	Ordering Suffix
SOT-23	3K	7	8	TRL
	10K	13	8	TRL 13
SOT-143	3K	7	8	TRL
	10K	13	8	TRL 13
SOT-223	1K	7	12	TRL
	4K	13	12	TRL 13
SOD-80	2.5K	7	8	TRL
	10K	13	8	TRL 13

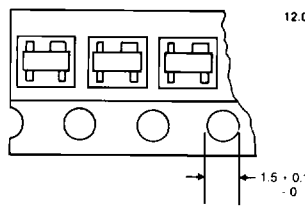
SOT-223 TAPE DIMENSIONS AND ORIENTATION



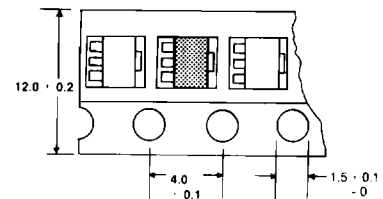
SOT-23 and SOT-143
TAPE DIMENSIONS



SOT-23
ORIENTATION



SOT-143
ORIENTATION



SOT-89
TAPE DIMENSIONS
AND ORIENTATION

(STANDARD DIODE ORIENTATION IS CATHODE BAND AND AT SPROCKET HOLE SIDE.)