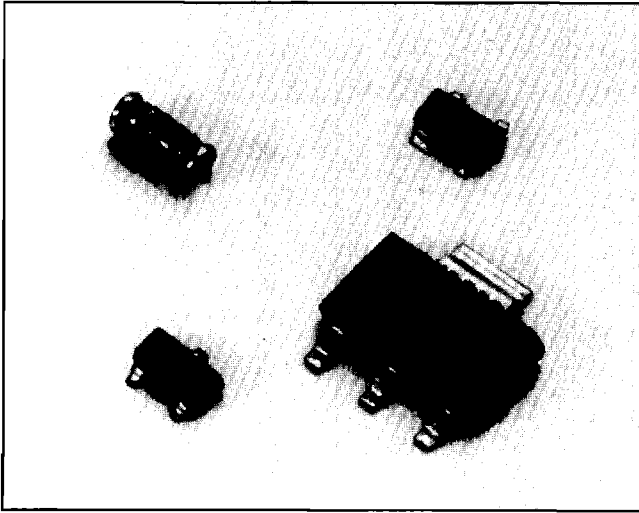


SMD® Switching Diodes



Description

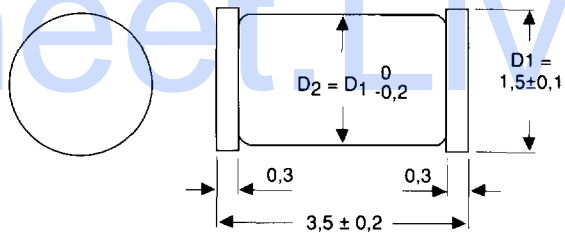
Philips Components diodes for switching applications combine the highest quality standards with state-of-the-art production equipment to fulfill the need for generic, low-cost devices. These switching diodes offer a broad range of current ratings, reverse breakdown voltages and switching specifications 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

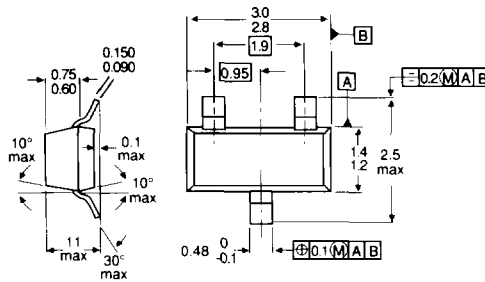
- Reverse breakdown voltages up to 200V
- Switching times as low as 2 ns
- Dual diodes in SOT-23 and SOT-143
- SOD-80C using "Implosion" technology for low cost, hermetic glass packaging.

Mechanical Data

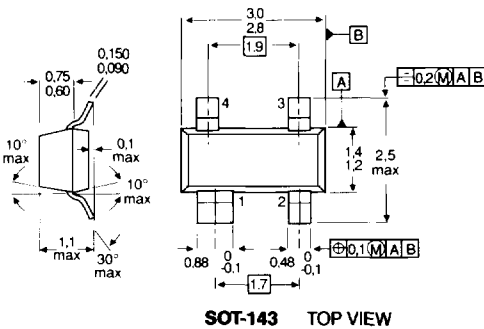
(Dimensions in mm)



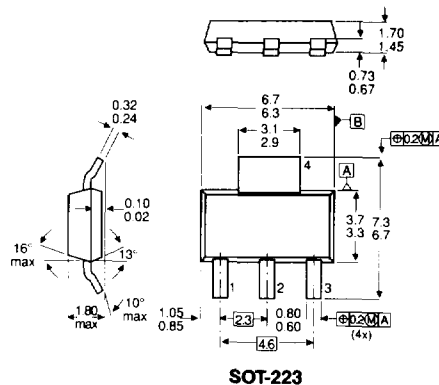
SOD-80C



SOT-23 TOP VIEW



SOT-143 TOP VIEW



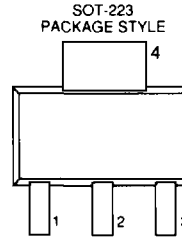
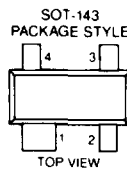
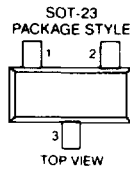
SOT-223

Electrical Specifications

Type	Package	Ratings		V _F		t _{rr(max)} ns	C _{J(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-80C	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-80C	50	250	1000	100	50	5	—
BAV101	SOD-80C	100	250	1000	100	50	5	—
BAV102	SOD-80C	150	250	1000	100	50	5	—
BAV103	SOD-80C	200	250	1000	100	50	5	—
BAV105	SOD-80C	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-80C	75	200	1000	100	4	4	—
PMLL4150	SOD-80C	50	300	920	100	4	2.5	—
PMLL4151	SOD-80C	75	200	1000	50	2	2	—
PMLL4153	SOD-80C	75	200	880	20	2	2	—
PMLL4446	SOD-80C	75	200	1000	100	4	4	—
PMLL4448	SOD-80C	75	200	1000	100	4	4	—

*Dual Diode

Pinout Diagrams



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

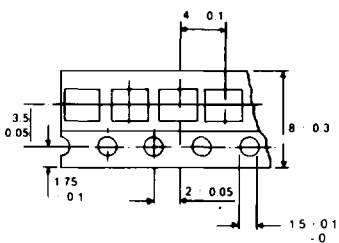
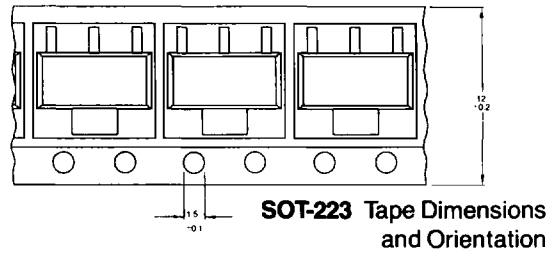
Marking Codes

Type No.	Code	Type No.	Code	Type No.	Code	Type No.	Code
BAS16	A6p	BAS31	L21	BAV74	JAp	PMBD2837	pA5
BAS19	JPp	BAS35	L22	BAV99	A7p	PMBD2838	pA6
BAS20	JRp	BAS56	L51	BAW56	A1p	PMBD6050	p5A
BAS21	JSp	BAV23	L30	PMBD914	p5D	PMBD6100	p5B
BAS28	JTp	BAV23S	L31	PMBD2835	pA3	PMBD7000	p5C
BAS29	L20	BAV70	A4p	PMBD2836	pA2		

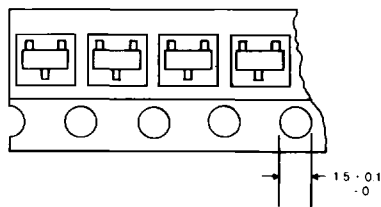
Tape and Reel Specifications

(Dimensions in mm)

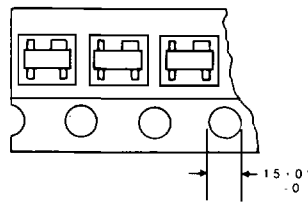
SM Package	Devices per Reel	Reel Size (in)	Tape Width (mm)	Ordering Suffix
SOT-23	3K	7	8	TRL
	10K	13	8	TRL 13
SOT-143	3K	7	8	TRL
	10K	13	8	TRL 13
SOT-223	1K	7	12	TRL
	4K	13	12	TRL 13
SOD-80C	2.5K	7	8	TRL
	10K	13	8	TRL 13



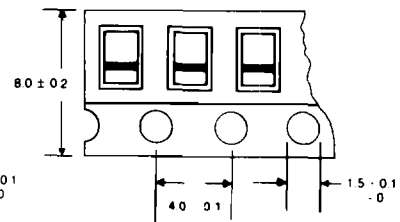
SOT-23 and SOT-143
Tape Dimensions



SOT-23
Orientation



SOT-143
Orientation



SOD-80C
Tape Dimensions and Orientation