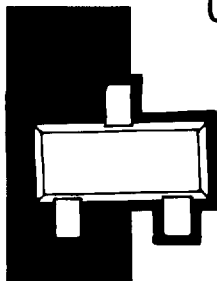


T. 11.09

SMD Zener Diode SOT-23 Case 350mW

U.S. Specification (Preferred Series)



The Central Semiconductor CMPZ5221B Series Silicon Zener Diode is a high quality voltage regulator for use in industrial, commercial, entertainment and computer applications. Higher voltage devices are available on special order.

ABSOLUTE MAXIMUM RATINGS	SYMBOL	UNIT
Power Dissipation (@ $T_A = 25^\circ\text{C}$)	P_D	350 mW
Operating and Storage Temperature	T_J, T_{STG}	-65 to +175 $^\circ\text{C}$
Tolerance "B Suffix"		± 5 %
Tolerance "C Suffix"		± 2 %
Tolerance "D Suffix"		± 1 %

ELECTRICAL CHARACTERISTICS

($T_A = 25^\circ\text{C}$), $V_F = 0.9\text{V MAX}$ @ $I_F = 10\text{ mA}$ FOR ALL TYPES.

TYPE	Zener Voltage	Test Current	Maximum Zener Impedance		Maximum Reverse Current		Maximum Zener Voltage Temperature Coefficient Θ_{VZ}	Marking Code	
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$				
	Volts	mA	Ω	Ω mA	μA	Volts			
CMPZ5221B*	2.4	20	30	1200	0.25	100	1.0	-0.085	*
CMPZ5222B*	2.5	20	30	1250	0.25	100	1.0	-0.085	*
CMPZ5223B*	2.7	20	30	1300	0.25	75	1.0	-0.080	*
CMPZ5224B*	2.8	20	30	1400	0.25	75	1.0	-0.080	*
CMPZ5225B*	3.0	20	29	1600	0.25	50	1.0	-0.075	*
CMPZ5226B	3.3	20	28	1600	0.25	25	1.0	-0.070	C8A
CMPZ5227B	3.6	20	24	1700	0.25	15	1.0	-0.065	C8B
CMPZ5228B	3.9	20	23	1900	0.25	10	1.0	-0.060	C8C
CMPZ5229B	4.3	20	22	2000	0.25	5.0	1.0	± 0.055	C8D
CMPZ5230B	4.7	20	19	1900	0.25	5.0	2.0	+0.030	C8E
CMPZ5231B	5.1	20	17	1600	0.25	5.0	2.0	± 0.030	C8F
CMPZ5232B	5.6	20	11	1600	0.25	5.0	3.0	+0.038	C8G
CMPZ5233B	6.0	20	7.0	1600	0.25	5.0	3.5	+0.038	C8H
CMPZ5234B	6.2	20	7.0	1000	0.25	5.0	4.0	+0.045	C8J
CMPZ5235B	6.8	20	5.0	750	0.25	3.0	5.0	+0.050	C8K
CMPZ5236B	7.5	20	6.0	500	0.25	3.0	6.0	+0.058	C8L
CMPZ5237B	8.2	20	8.0	500	0.25	3.0	6.5	+0.062	C8M
CMPZ5238B	8.7	20	8.0	600	0.25	3.0	6.5	+0.065	C8N
CMPZ5239B	9.1	20	10	600	0.25	3.0	7.0	+0.068	C8P
CMPZ5240B	10	20	17	600	0.25	3.0	8.0	+0.075	C8Q
CMPZ5241B	11	20	22	600	0.25	2.0	8.4	+0.076	C8R
CMPZ5242B	12	20	30	600	0.25	1.0	9.1	+0.077	C8S
CMPZ5243B	13	9.5	13	600	0.25	0.5	9.9	+0.079	C8T
CMPZ5244B	14	9.0	15	600	0.25	0.1	10	+0.082	C8U
CMPZ5245B	15	8.5	16	600	0.25	0.1	11	+0.082	C8V
CMPZ5246B	16	7.8	17	600	0.25	0.1	12	+0.083	C8W
CMPZ5247B	17	7.4	19	600	0.25	0.1	13	+0.084	C8X
CMPZ5248B	18	7.0	21	600	0.25	0.1	14	+0.085	C8Y
CMPZ5249B	19	6.6	23	600	0.25	0.1	14	+0.086	C8Z
CMPZ5250B	20	6.2	25	600	0.25	0.1	15	+0.086	81A
CMPZ5251B	22	5.6	29	600	0.25	0.1	17	+0.087	81B
CMPZ5252B	24	5.2	33	600	0.25	0.1	18	+0.088	81C
CMPZ5253B	25	5.0	35	600	0.25	0.1	19	+0.089	81D
CMPZ5254B	27	4.6	41	600	0.25	0.1	21	+0.090	81E
CMPZ5255B	28	4.5	44	600	0.25	0.1	21	+0.091	81F
CMPZ5256B	30	4.2	49	600	0.25	0.1	23	+0.091	81G
CMPZ5257B	33	3.8	58	700	0.25	0.1	25	+0.092	81H

*AVAILABLE ON SPECIAL ORDER ONLY, PLEASE CONSULT FACTORY.



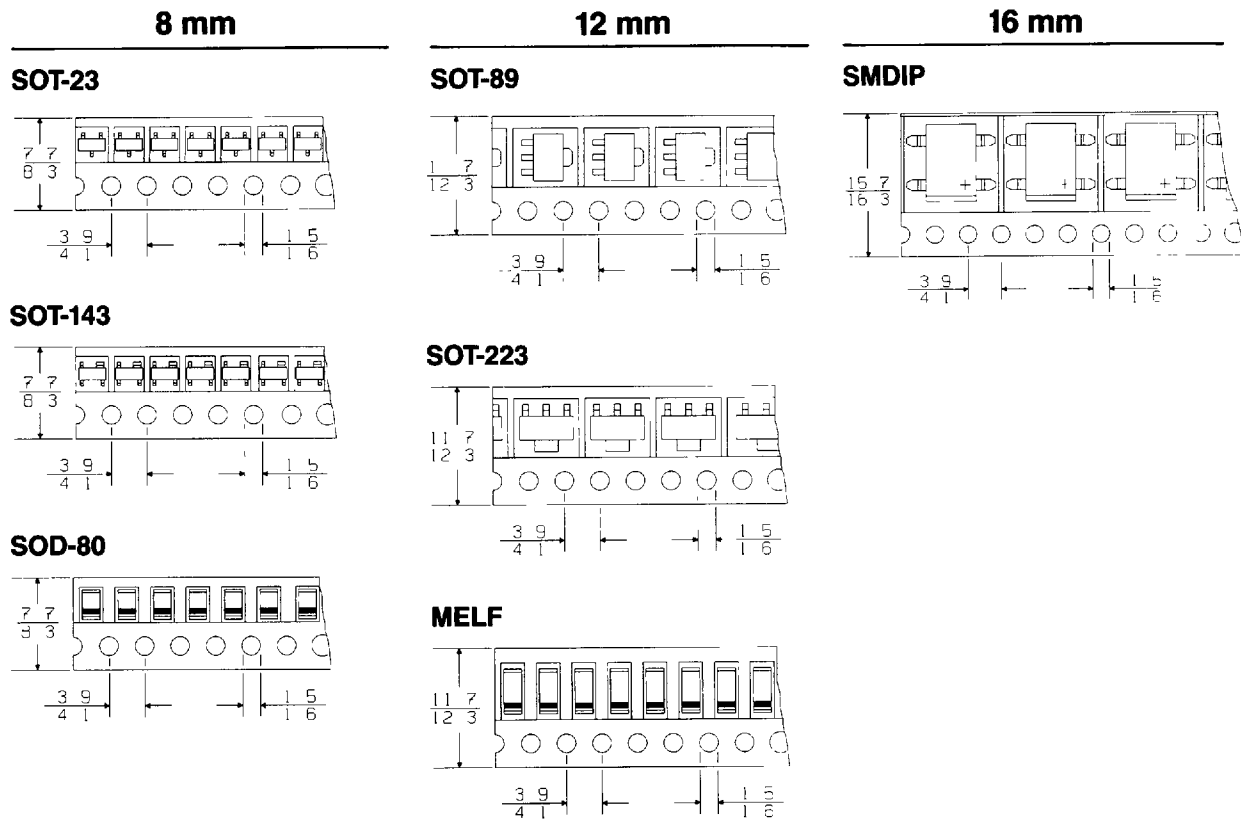
SMD Zener Diode SOT-23 Case 350mW

Proelectron Specification

TYPE NO.	CASE	V_Z RANGE	TOLERANCE	POWER	MARKING
BZX84C3V3 thru BZX84C33	SOT-23	3.3 V thru 33 V	$\pm 5\%$	350mW	W6 thru Y12

T-91-20

Tape Dimensions And Orientation: (Dimensions in mm)



DIRECTION OF UNREELING
←

Taped And Reeled Packaging Base

PACKAGE	TAPE WIDTH (mm)	REEL SIZE (INCH)	DEVICE PER REEL
SOT-23	8	7 13	3,000 10,000
SOT-143	8	7 13	3,000 10,000
SOT-89	12	7 13	1,000 4,000
SOT-223	12	7 13	1,000 4,000
SOD-80	8	7 13	2,500 10,000
MELF	12	7 13	1,500 5,000
SMDIP	16	7 13	250 1,000

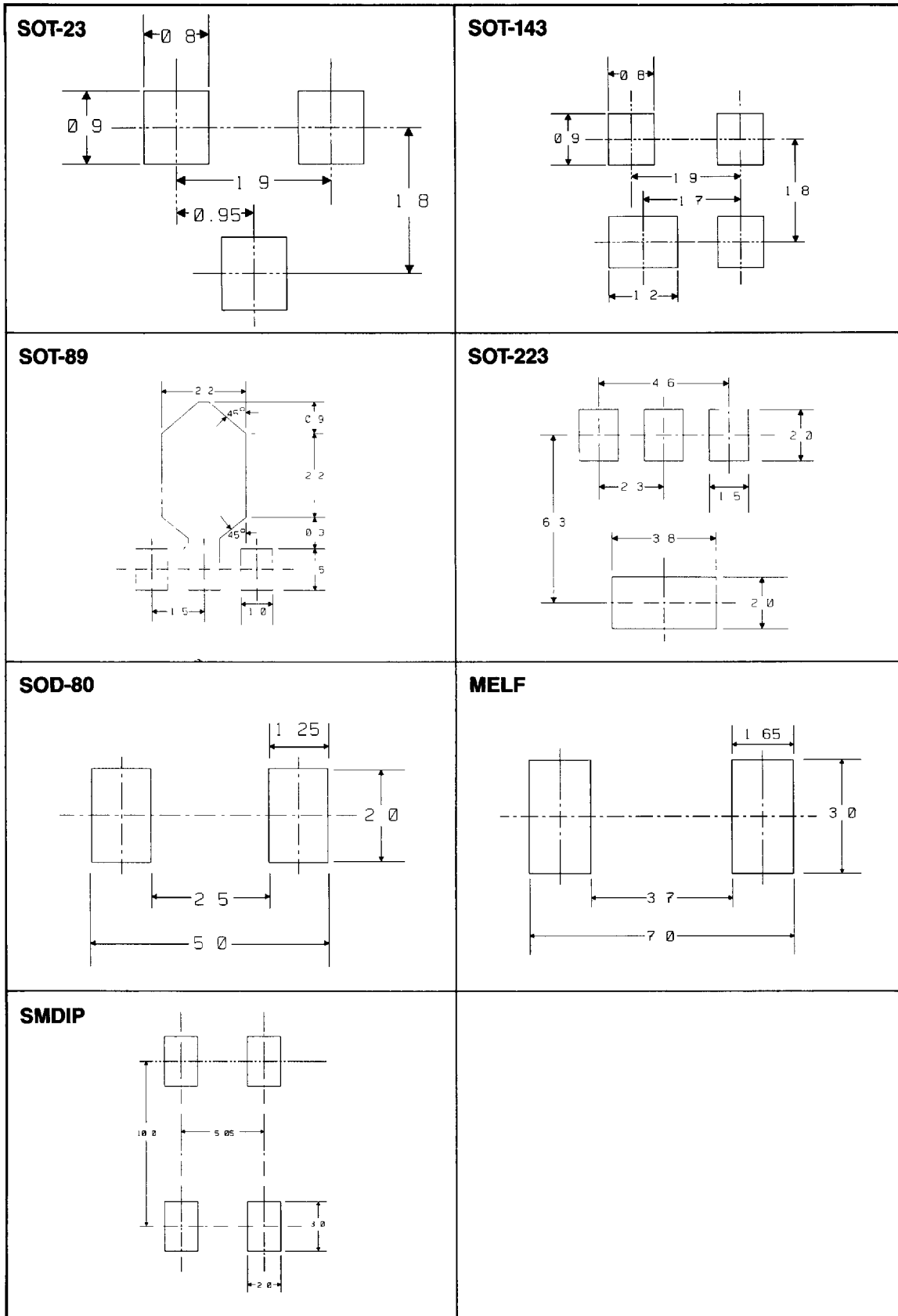
ORDERING INFO:

For devices taped and reeled on 7" reels, add TR suffix to part number.
 For devices taped and reeled on 13" reels, add TR13 suffix to part number.
 For devices bulk packed, add BK suffix to part number.
 All SMDs are available bulk packed, for prototype and manual placement applications.
 Bulk SMDs are shipped in black plastic, anti-static vials with hinged lids.

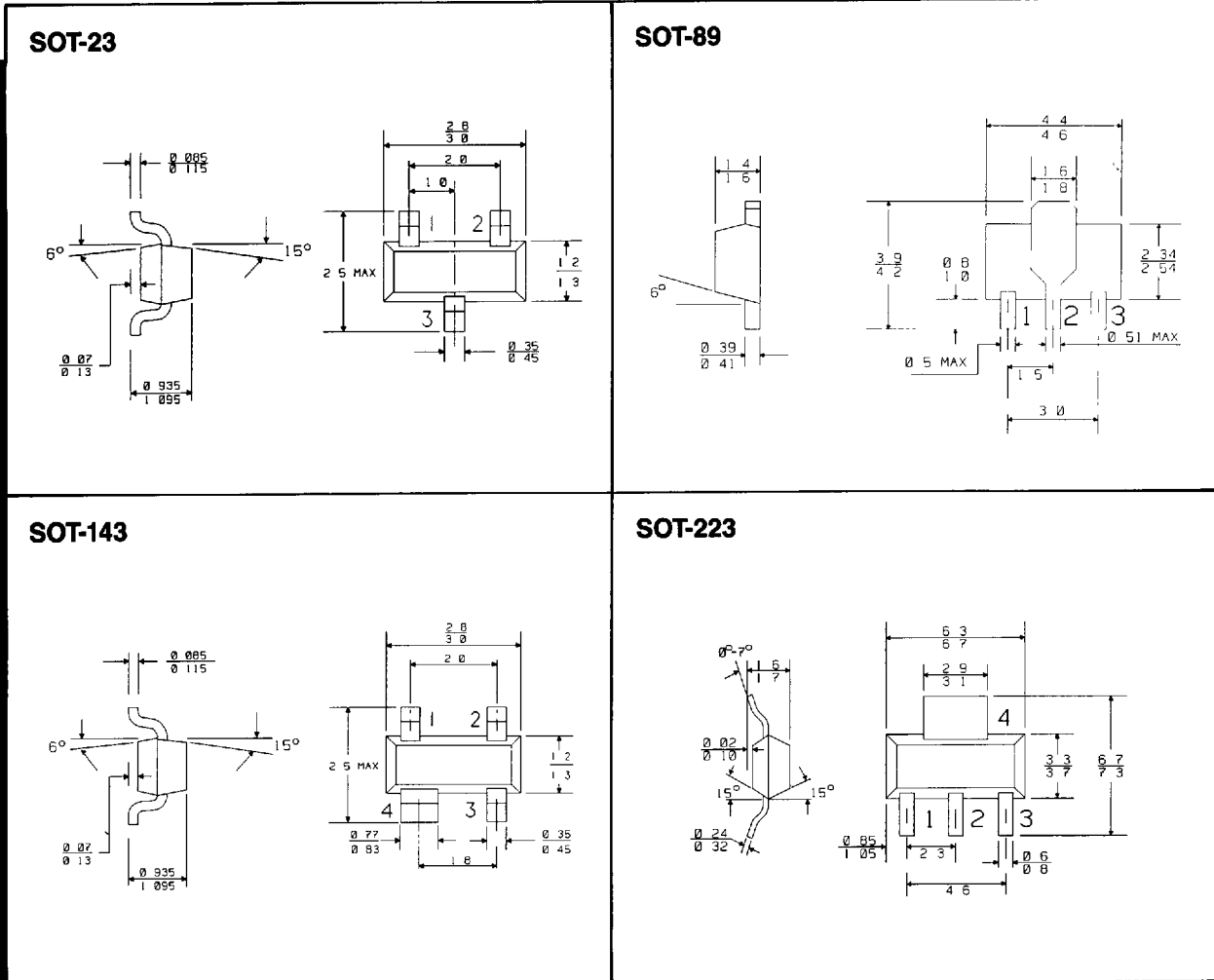
Bulk Packed Packaging Base

Package	Quantity
SOT-23	1K/Vial
SOT-143	1K/Vial
SOT-89	1K/Vial
SOT-223	250/Vial
SOD-80	1K/Vial
MELF	1K/Vial
SMDIP	50/Sleeve

Mounting Pad Geometries (Dimensions in mm)



Mechanical Drawings (Dimensions in mm)



LEAD CODE

- SOT-23 DIODE (SINGLE)
- SOT-23 DIODE (DUAL, COMMON CATHODE)
- SOT-23 DIODE (DUAL, COMMON ANODE)
- SOT-23 DIODE (DUAL, IN SERIES)
- SOT-23 JFET
- SOT-23 STABISTOR
- SOT-23 SCR
- SOT-23 TRANSISTOR
- SOT-23 ZENER (SINGLE)
- SOT-23 ZENER (DUAL, COMMON ANODE)
- SOT-89 SCHOTTKY RECTIFIER
- SOT-89 TRANSISTOR
- SOT-89 TRIAC
- SOT-89 ZENER DIODE

PIN 1

- NO CONNECTION
- ANODE
- CATHODE
- CATHODE
- SOURCE*
- NO CONNECTION
- GATE
- EMITTER
- NO CONNECTION
- CATHODE
- ANODE
- EMITTER
- GATE
- ANODE

PIN 2

- ANODE
- ANODE
- CATHODE
- ANODE
- DRAIN*
- ANODE
- CATHODE
- BASE
- ANODE
- CATHODE
- ANODE
- COLLECTOR
- MT2
- CATHODE

PIN 3

- CATHODE
- CATHODE
- ANODE
- CATHODE, ANODE
- GATE
- CATHODE
- ANODE
- COLLECTOR
- CATHODE
- ANODE
- ANODE
- BASE
- MT1
- ANODE

- SOT-143 DIODE (DUAL, ISOLATED)
- SOT-223 TRANSISTOR

PIN 1

- ANODE #1
- BASE

PIN 2

- ANODE #2
- COLLECTOR

PIN 3

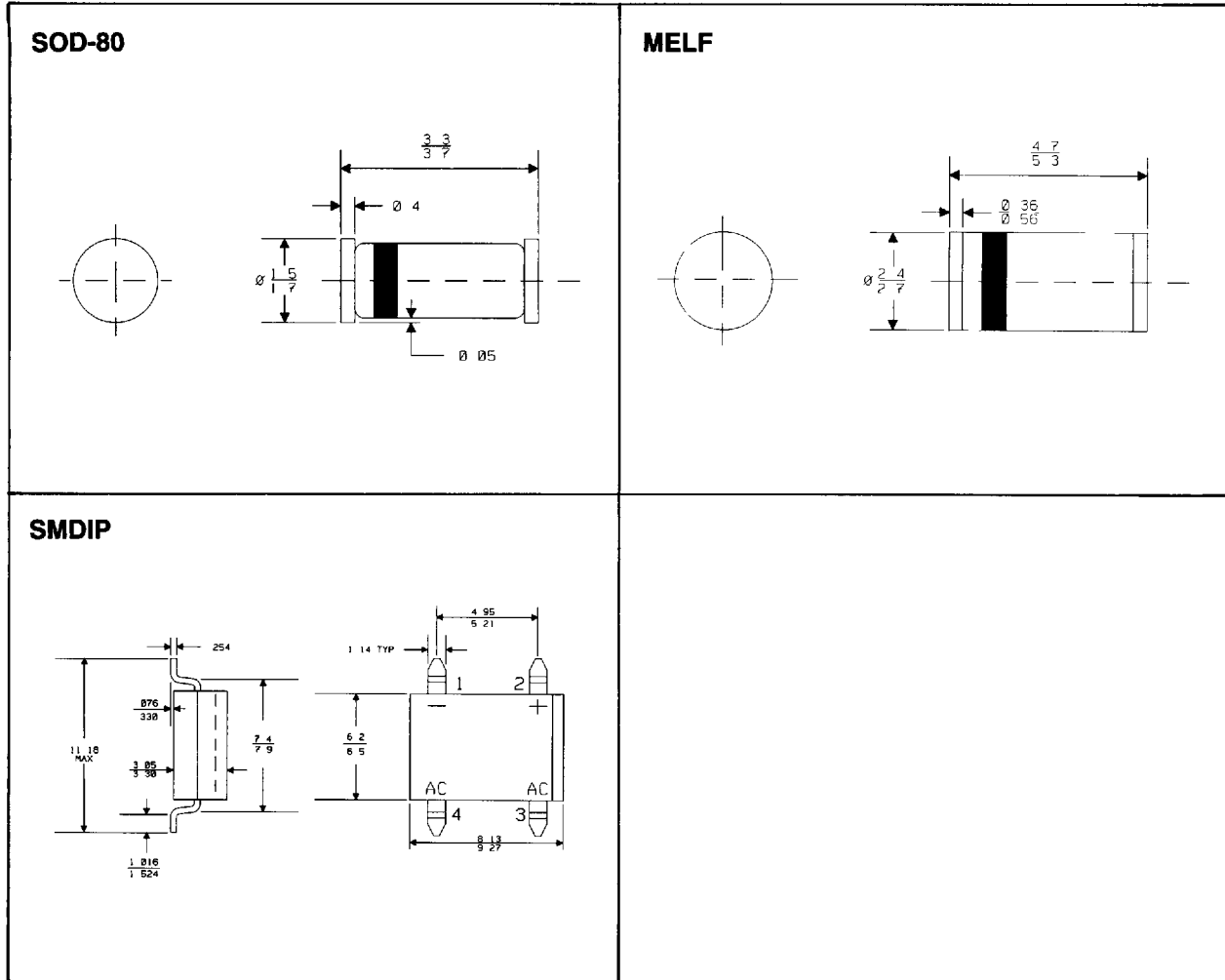
- CATHODE #2
- EMITTER

PIN 4

- CATHODE #1
- COLLECTOR

*SOURCE AND DRAIN ARE INTERCHANGEABLE ON JFETs

Mechanical Drawings (Dimensions in mm)



LEAD CODE
SMDIP BRIDGE RECTIFIER

PIN 1
NEGATIVE

PIN 2
POSITIVE

PIN 3
AC

PIN 4
AC