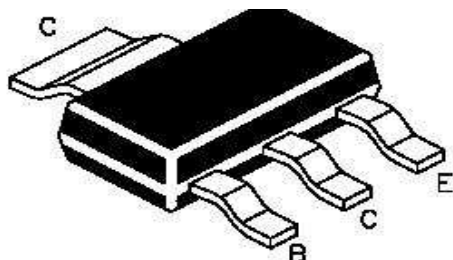


NPN SILICON PLANAR EPITAXIAL TRANSISTOR

PZTA42



SOT-223

Formed SMD Package

For use in Telephony and Professional Communication Equipment

Complementary PZTA92

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V_{CBO}	300	V
Collector Emitter Voltage	V_{CEO}	300	V
Emitter Base Voltage	V_{EBO}	6.0	V
Collector Current (DC)	I_C	100	mA
Collector Current Peak	I_{CM}	200	mA
Base Current Peak	I_{BM}	100	mA
Power Dissipation upto $T_{amb}=25^\circ\text{C}$	$*P_D$	1.2	W
Storage Temperature	T_{stg}	- 65 to +150	$^\circ\text{C}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Operating Ambient Temperature	T_{amb}	- 65 to +150	$^\circ\text{C}$

THERMAL RESISTANCE

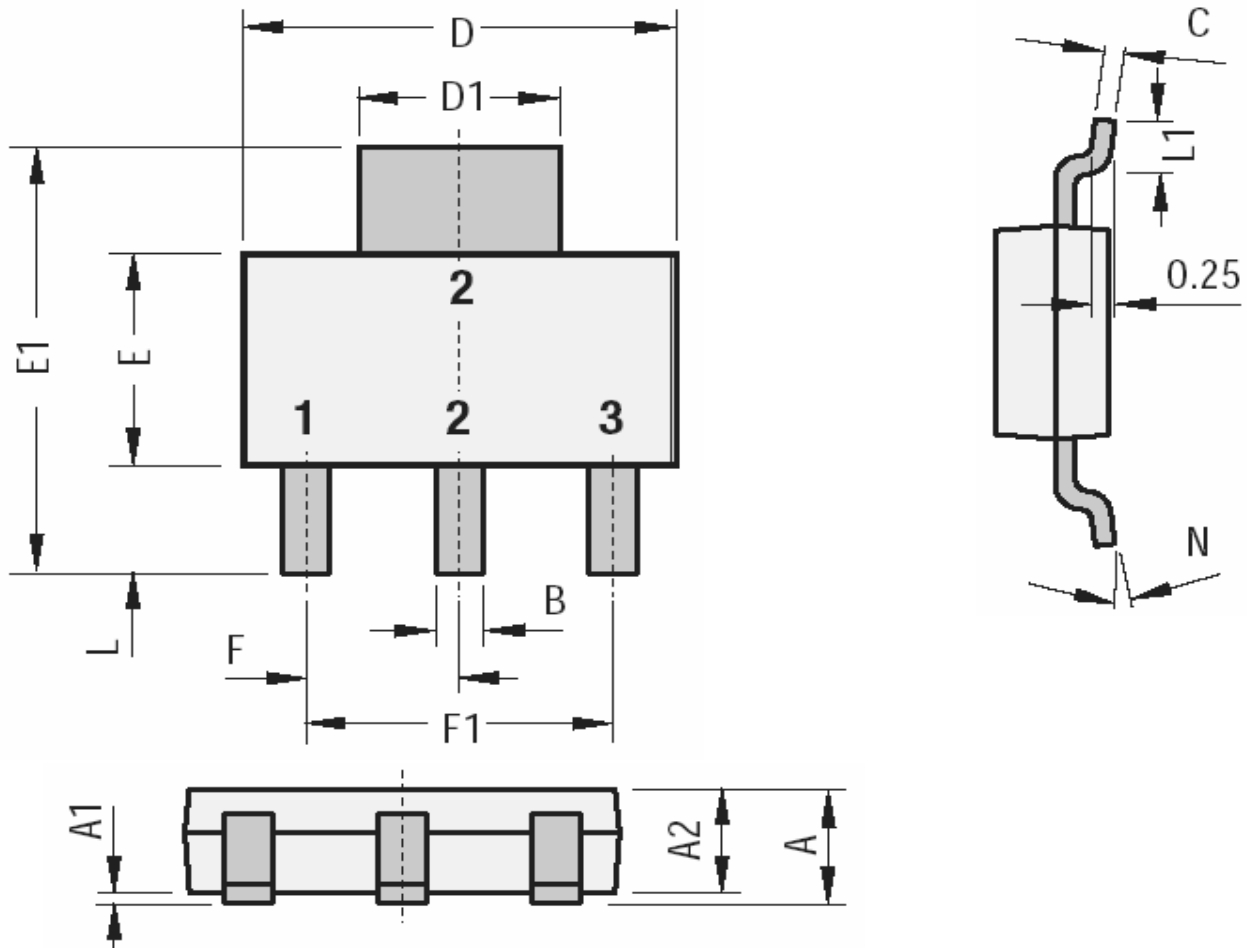
From junction to ambient	$*R_{th(j-a)}$	104	K/W
From junction to soldering point	$R_{th(j-a)}$	23	K/W

* Device Mounted on printed circuit board, single sided copper, tinplated, mounting pad for collector 1 cm^2 .

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Cut Off Current	I_{CBO}	$V_{CB}=200\text{V}, I_E=0$			20	nA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=6\text{V}, I_C=0$			100	nA
DC Current Gain	h_{FE}	$I_C=1\text{mA}, V_{CE}=10\text{V}$	25			
		$I_C=10\text{mA}, V_{CE}=10\text{V}$	40			
		$I_C=30\text{mA}, V_{CE}=10\text{V}$	40			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.9	V
Feedback Capacitance	C_{re}	$V_{CB}=20\text{V}, f=1\text{MHz}$			3.0	pF
Transition Frequency	f_T	$I_C=10\text{mA}, V_{CE}=20\text{V}, f=100\text{MHz}$	50			MHz

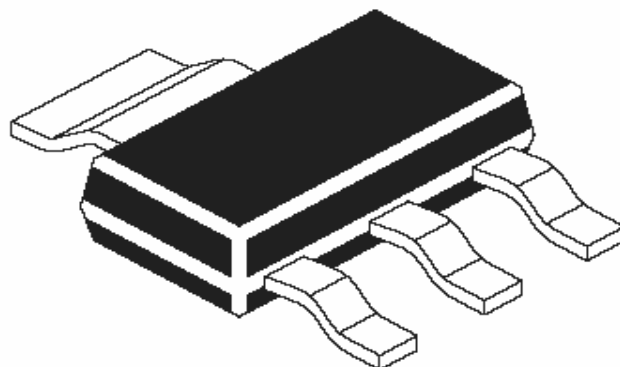
SOT-223 SMD Plastic Package



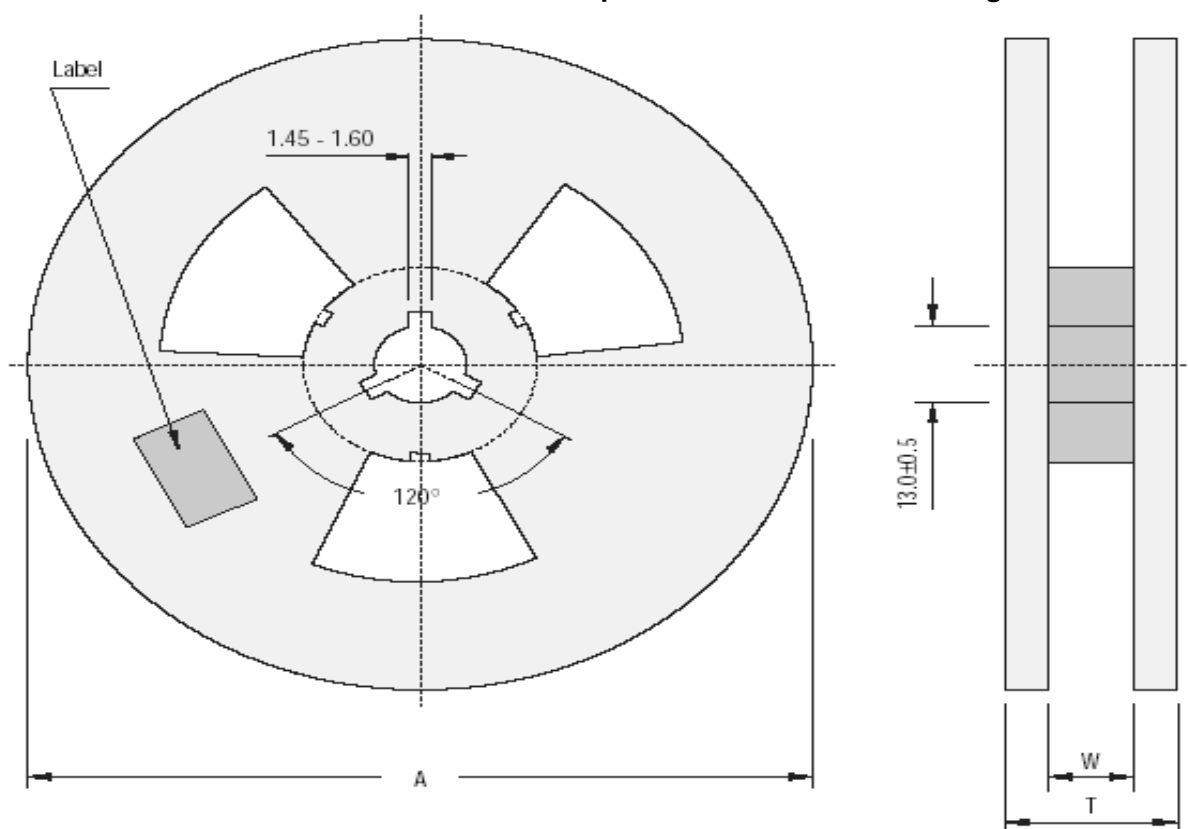
DIM	Min	Max
A	1.52	1.80
A1	0.02	0.10
A2	1.50	1.70
B	0.61	0.81
C	0.25	0.35
D	6.30	6.70
D1	2.90	3.10

All Dimensions are in mm

DIM	Min	Max
E	3.30	3.70
E1	6.70	7.30
F	2.30 Typ	
F1	4.50	4.70
L	1.76 Typ	
L1	0.90	
N	0.00	10.00



Reel Dimensions and Components/Reel for SMD Package



Reel Specifications

Package	Tape Width	Reel Dia. A - Max	Inside Thickness W	Reel Thickness T - max
SOT-223	12	180	12.4 ± 2	18.4
	12	330	12.4 ± 2	18.4

All Dimensions are in mm

Packaging Information

Package/ Case Type	Packaging Type	Std. Packing Qty	Inner Carton			Outer Carton		
			Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
SOT-223	T & R	1,000						
	T & R	4,000						

T & R: Tape and Reel

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of

Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119

email@cdil.com

www.cdilsemi.com