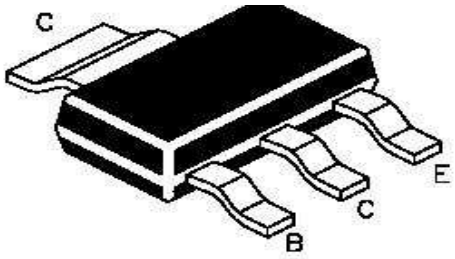
Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

NPN SILICON PLANAR EPITAXIAL TRANSISTOR

PZTA44



SOT-223
Formed SMD Package

High Voltage Transistor

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V_{CBO}	500	V
Collector Emitter Voltage	V_{CEO}	400	V
Emitter Base Voltage	V_{EBO}	6.0	V
Collector Current (DC)	I_C	300	mA
Collector Current Peak	I_{CM}	300	mA
Base Current Peak	I_{BM}	100	mA
Power Dissipation upto T_{amb}=25ºC	*P_D	1.35	W
Storage Temperature	T_{stg}	- 65 to +150	ºC
Junction Temperature	T_j	150	ºC
Operating Ambient Temperature	T_{amb}	- 65 to +150	ºC

THERMAL RESISTANCE

From junction to ambient	*$R_{th\ (j-a)}$	91	K/W
From junction to soldering point	$R_{th\ (j-s)}$	10	K/W

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

ABSOLUTE MAXIMUM RATINGS (T_{amb}=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Cut Off Current	I_{CBO}	V_{CB}=400V, I_E=0			100	nA
		V_{CB}=400V, I_E=0, T_j=150ºC			10	µA
Emitter Cut Off Current	I_{EBO}	V_{EB}=4V, I_C=0			100	nA
DC Current Gain	h_{FE}	I_C=1mA, V_{CE}=10V	40			
		I_C=10mA, V_{CE}=10V	50		200	
		*I_C=50mA, V_{CE}=10V	45			
		*I_C=100mA, V_{CE}=10V	40			
Collector Emitter Saturation Voltage	$V_{CE\ (sat)}$	I_C=1mA, I_B=0.1mA			0.40	V
		I_C=10mA, I_B=1mA			0.50	V
		*I_C=50mA, I_B=5mA			0.75	V
Base Emitter Saturation Voltage	$V_{BE\ (sat)}$	*I_C=10mA, I_B=1mA			0.85	V
Collector Capacitance	C_c	V_{CB}=20V, f=1MHz			7.0	pF
Emitter Capacitance	C_e	V_{EB}=0.5V, f=1MHz			180	pF
Transition Frequency	f_T	I_C=10mA, V_{CE}=10V,f=100MHz	20			MHz

Pulse test tp ≤300 µs; δ ≤ 0.02

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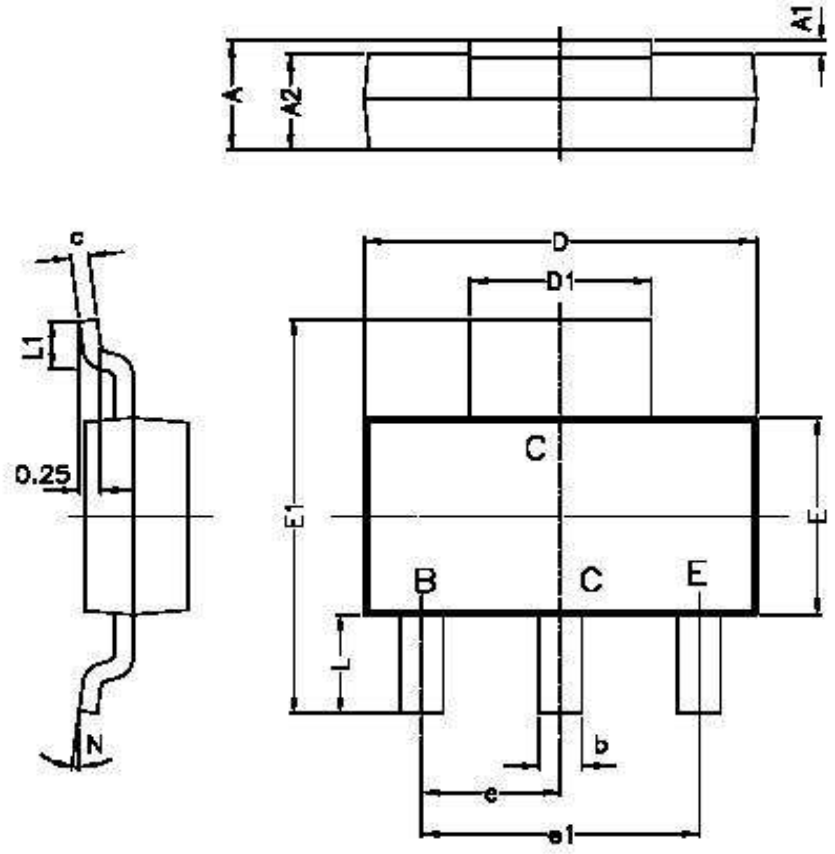
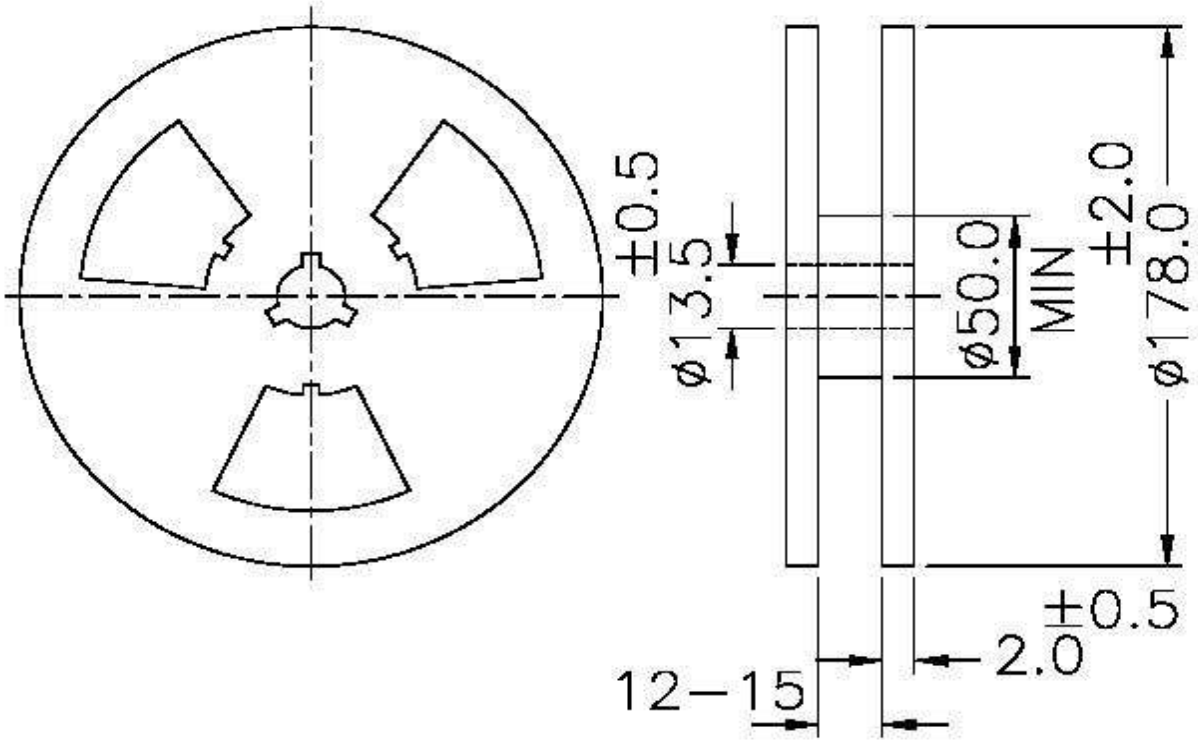


DIM	MIN.	MAX.
A	1.520	1.800
A1	0.020	0.100
A2	1.500	1.700
b	0.610	0.810
c	0.250	0.350
D	6.300	6.700
D1	2.900	3.100
E	3.300	3.700
E1	6.700	7.300
e	2.300 TYP	
e1	4.500	4.700
L	1.760 TYP	
L1	0.900	–
N	0°	10°

ALL DIMENSIONS ARE IN mm

PZTA44Rev140606E



ALL DIMENSIONS ARE IN mm
REEL ø 178 mm (7")
1000 Pcs / REEL

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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

CDIL is a registered Trademark of
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