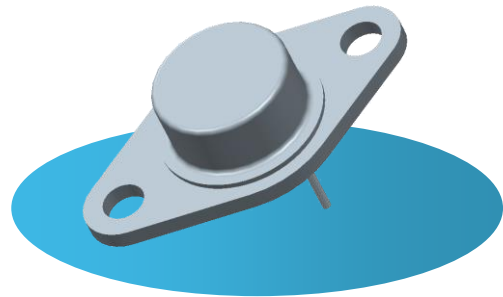


PNP Epitaxial Silicon Bipolar Transistor

BDX14A

- Hermetic TO-66 Metal Package
- Ideal For General Purpose Low Frequency Switching Applications
- High Reliability Screening Options Available



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

V_{CBO}	Collector - Base Voltage		-90V
V_{CEO}	Collector - Emitter Voltage		-55V
V_{CER}	Collector - Emitter Voltage	$R_{BE} = 100\Omega$	-60V
V_{CEX}	Collector - Base Voltage	$V_{BE} = +1.5V$	-90V
V_{EBO}	Emitter - Base Voltage		-7V
I_C	Continuous Collector Current		-4A
I_B	Base Current		-2A
P_D	Total Power Dissipation	$T_C = 25^\circ\text{C}$	21.87W
		Derate Above 25°C	0.125W/ $^\circ\text{C}$
T_J	Junction Temperature Range		-55 to $+200^\circ\text{C}$
T_{stg}	Storage Temperature Range		-65 to $+200^\circ\text{C}$

THERMAL PROPERTIES

Symbols	Parameters	Max.	Units
$R_{\theta JC}$	Thermal Resistance, Junction To Case	8	$^\circ\text{C}/\text{W}$

Semelab Limited reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

PNP Epitaxial Silicon Bipolar Transistor BDX14A

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise stated)

Symbols	Parameters	Test Conditions	Min.	Typ.	Max.	Units
I_{CEX}	Collector-Emitter Cut Off Current	$V_{CE} = -90\text{V}$ $V_{BE} = +1.5\text{V}$			-1.0	mA
		$V_{CE} = -90\text{V}$ $V_{BE} = +1.5\text{V}$ $T_{case} = 150^\circ\text{C}$			-5	
$V_{(BR)CEO}^{(1)}$	Collector Emitter Breakdown Voltage	$I_C = -10\text{mA}$ $I_B = 0$	-55			V
$V_{(BR)CER}$	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}$ $R_{BE} = 100\Omega$	-60			
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1.0\text{mA}$ $I_C = 0$	-7			
$V_{CE(sat)}^{(1)}$	Collector-Emitter Saturation Voltage	$I_C = -0.5\text{A}$ $I_B = -50\text{mA}$			-1.0	
$V_{BE}^{(1)}$	Base-Emitter Voltage	$V_{CE} = -4\text{V}$ $I_C = -0.5\text{A}$			-1.7	
$h_{FE}^{(1)}$	Static Forward Current Transfer Ratio	$V_{CE} = -4\text{V}$ $I_C = -0.5\text{A}$	25		250	-

DYNAMIC CHARACTERISTICS

f_T	Transition Frequency	$V_{CE} = -10\text{V}$ $I_C = -0.2\text{A}$ $f = 1.0\text{MHz}$	4			MHz
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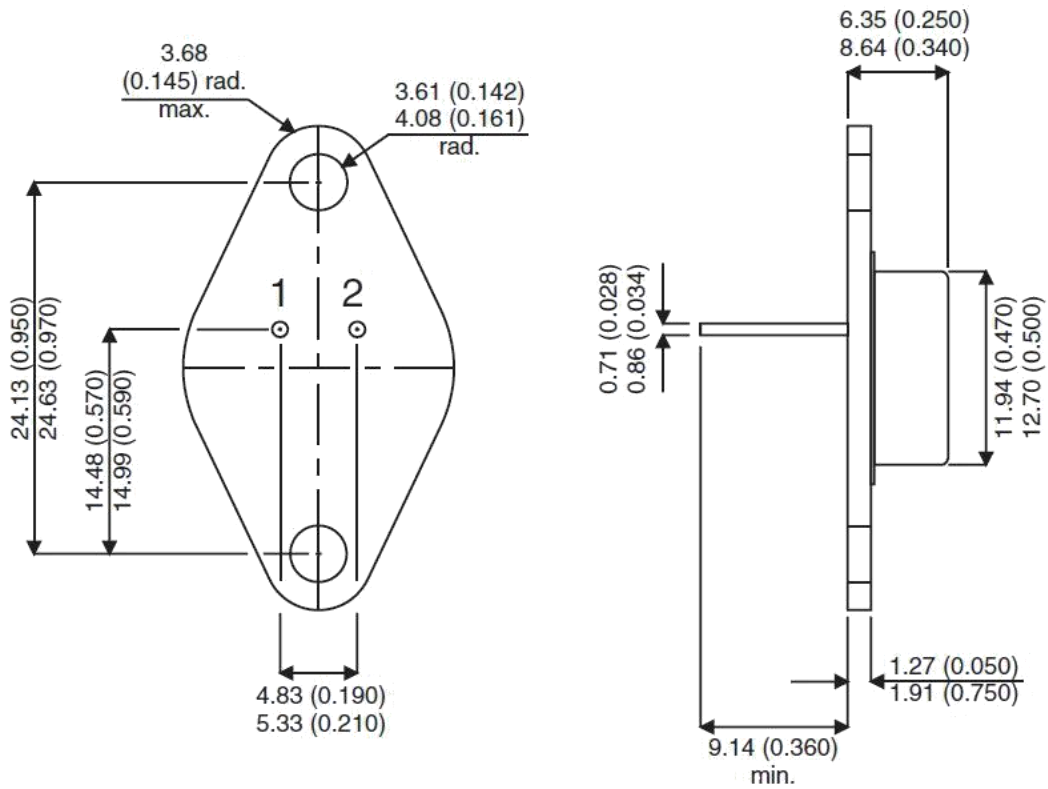
Notes

(1) Pulse Width $\leq 380\mu\text{s}$, $\delta \leq 2\%$

PNP Epitaxial Silicon Bipolar Transistor BDX14A

MECHANICAL DATA

Dimensions in mm (inches)



TO-66 (TO-213AA) METAL PACKAGE
Underside View

Pin 1 - Base Pin 2 - Emitter Case - Collector