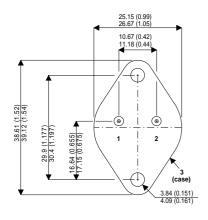


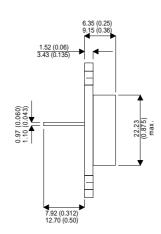
2N6578

MECHANICAL DATA

Dimensions in mm (inches)

NPN BIPOLAR POWER DARLINGTON TRANSISTOR





FEATURES

- FAST SWITCHING
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS
- JAN LEVEL SCREENING OPTIONS

TO-3 (TO-204AA)

Underside View

1 = Emitter

2 = Base

3 = Collector

APPLICATIONS

- HIGH SPEED SWITCHING CIRCUITS
- POWER AMPLIFIERS

ABSOLUTE MAXIMUM RATINGS (T_C = 25°C unless otherwise stated)

V_{CBO}	Collector – Base Voltage (I _E = 0)	120V
V_{CEO}	Collector – Emitter Voltage (I _B = 0)	120V
V_{EBO}	Emitter – Base Voltage (I _C = 0)	7V
I _B	Base Current	250mA
$I_{\mathbb{C}}$	Collector Current	15A
P_{D}	Power Dissipation @ T _C = 25°C	120W
$R_{ heta JC}$	Thermal Resistance Junction to Case	1.46°C/W
T_J , T_STG	Operating and Storage Junction Temperature Range	−65 to +200°C

Semelab Plc 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.

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

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
BV _{CEO}	Collector – Emitter Breakdown Voltage	I _C = 200mA		120			V
I _{CBO}	Collector – Base Cut-off Current	V _{CB} = 120V				500	μΑ
I _{CEV}	Collector – Emitter Cut-off Current	V _{CEV} = 120V	$V_{BE(off)} = 1.5V$			5.0	
I _{CER}	Collector – Emitter Cut-off Current	$V_{CER} = 120V R_{BE} = 10k\Omega$	$R_{BE} = 10k\Omega$			5.0	mA
			T _C = 150°C		5.0	'''	
I _{CEO}	Collector – Base Cut-off Current	V _{CE} = 120V				1.0	
V _{CE(sat)}	Collector – Emitter Saturation Voltage	I _C = 10A	$I_B = 100 \text{mA}$			2.8	V
		I _C = 15A	$I_B = 150 \text{mA}$			4.0	
V _{BE(sat)}	Base – Emitter On Voltage	I _C = 10A	I _B = 100mA			3.5	
		I _C = 15A	I _B = 150mA			4.5	
h _{FE}	DC Current Gain	I _C = 0.4A	V _{CE} = 3V	200			_
		I _C = 4.0A	$V_{CE} = 3V$	2000		20000	
		I _C = 10A	$V_{CE} = 3V$	500		5000	
		I _C = 15A	$V_{CE} = 4V$	100			
V _F	Forward Voltage	I _{EC} = 15A		4.5			V
[h _{fe}]	Small Signal Current Gain	V _{CE} = 3V	I _C = 3A	10		200	_
		f = 1.0MHz		10			
t _d	Delay Time	I _C = 10A	V _{CC} = 30V			0.15	
t _r	Rise time	I _{B1 =} 100mA				1.0	
t _s	Storage Time	I _C = 10A	V _{CC} = 30V			2.0	μs
t _f	Fall Time	$I_{B1} = -I_{B2} = 10$	0mA			7.0	

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