BOURNS®

- 20 W Pulsed Power Dissipation
- 100 V Capability
- 2 A Continuous Collector Current
- 4 A Peak Collector Current
- Customer-Specified Selections Available

LP PACKAGE (TOP VIEW)



MDTRAB

absolute maximum ratings at 25°C case temperature (unless otherwise noted)

RATING			VALUE	UNIT	
	TIPP32		-40		
Collector-base voltage (I _E = 0)	TIPP32A	V	-60	V	
	TIPP32B	V _{CBO}	-80		
	TIPP32C		-100		
	TIPP32		-40		
Collector-emitter voltage (I _B = 0)	TIPP32A	V	-60	V	
	TIPP32B	V _{CEO}	-80		
	TIPP32C		-100		
Emitter-base voltage			-5	V	
Continuous collector current			-2	Α	
Peak collector current (see Note 1)			-4	Α	
Continuous base current			-1	Α	
Continuous device dissipation at (or below) 25°C case temperature (see Note 2)			0.8	W	
Pulsed power dissipation (see Note 3)			20	W	
Operating junction temperature range			-55 to +150	°C	
Storage temperature range			-55 to +150	°C	
Lead temperature 3.2 mm from case for 10 seconds			260	°C	

NOTES: 1. This value applies for $t_p \le 0.3$ ms, duty cycle $\le 10\%$.

- 2. Derate linearly to 150°C case temperature at the rate of 6.4 mW/°C.
- 3. $V_{CE} = 20 \text{ V}$, $I_{C} = 1 \text{ A}$, $t_{D} = 10 \text{ ms}$, duty cycle $\leq 2\%$.

TIPP32, TIPP32A, TIPP32B, TIPP32C PNP SILICON POWER TRANSISTORS



electrical characteristics at 25°C case temperature

	PARAMETER		TEST CONDITION	ONS	MIN	TYP	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C = -5 mA (see Note 4)	I _B = 0	TIPP32 TIPP32A TIPP32B TIPP32C	-40 -60 -80 -100			V
I _{CES}	Collector-emitter cut-off current	$V_{CE} = -40 \text{ V}$ $V_{CE} = -60 \text{ V}$ $V_{CE} = -80 \text{ V}$ $V_{CE} = -100 \text{ V}$	$V_{BE} = 0$ $V_{BE} = 0$ $V_{BE} = 0$ $V_{BE} = 0$	TIPP32 TIPP32A TIPP32B TIPP32C			-0.2 -0.2 -0.2 -0.2	mA
I _{CEO}	Collector cut-off current	$V_{CE} = -30 \text{ V}$ $V_{CE} = -60 \text{ V}$	$I_{B} = 0$ $I_{B} = 0$	TIPP32/32A TIPP32B/32C			-0.3 -0.3	mA
I _{EBO}	Emitter cut-off current	V _{EB} = -5 V	I _C = 0				-1	mA
h _{FE}	Forward current transfer ratio	$V_{CE} = -4 V$ $V_{CE} = -4 V$	$I_C = -1 A$ $I_C = -2 A$	(see Notes 4 and 5)	20 10			
V _{CE(sat)}	Collector-emitter saturation voltage	I _B = -375 mA	I _C = -2 A	(see Notes 4 and 5)			-1	٧
V _{BE}	Base-emitter voltage	V _{CE} = -4 V	I _C = -2 A	(see Notes 4 and 5)			-1.5	٧
h _{fe}	Small signal forward current transfer ratio	V _{CE} = -10 V	$I_{\rm C} = -0.5 \; {\rm A}$	f = 1 kHz	20			
h _{fe}	Small signal forward current transfer ratio	V _{CE} = -10 V	I _C = -0.5 A	f = 1 MHz	3			

NOTES: 4. These parameters must be measured using pulse techniques, t_p = 300 μ s, duty cycle \leq 2%.

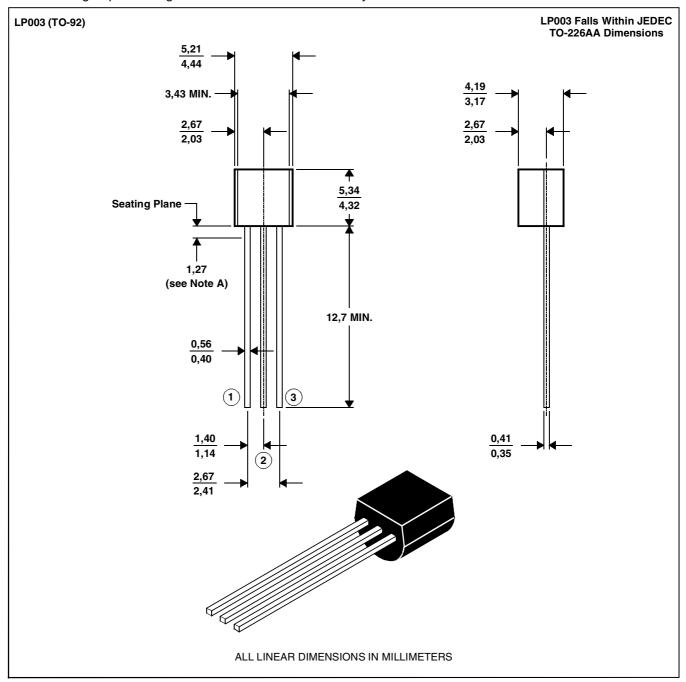
^{5.} These parameters must be measured using voltage-sensing contacts, separate from the current carrying contacts.

MECHANICAL DATA

LP003 (TO-92)

3-pin cylindical plastic package

This single-in-line package consists of a circuit mounted on a lead frame and encapsulated within a plastic compound. The compound will withstand soldering temperature with no deformation, and circuit performance characteristics will remain stable when operated in high humidity conditions. Leads require no additional cleaning or processing when used in soldered assembly.



NOTE A: Lead dimensions are not controlled in this area.

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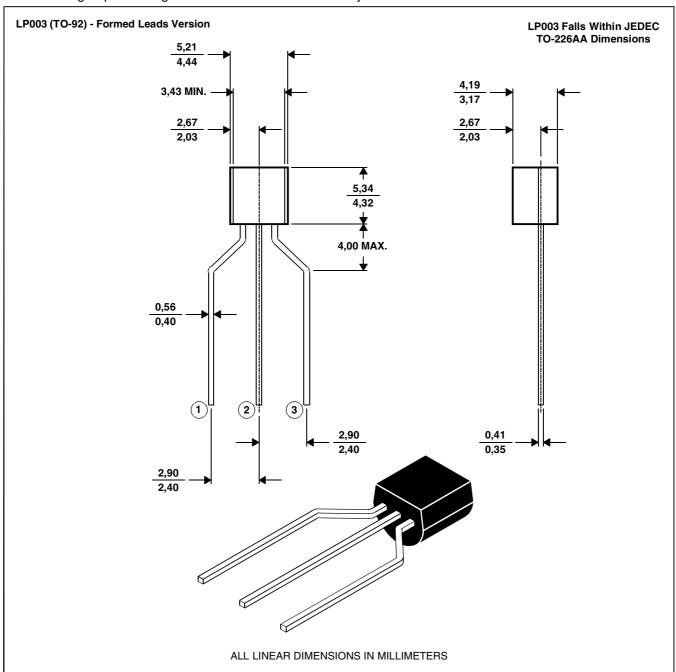


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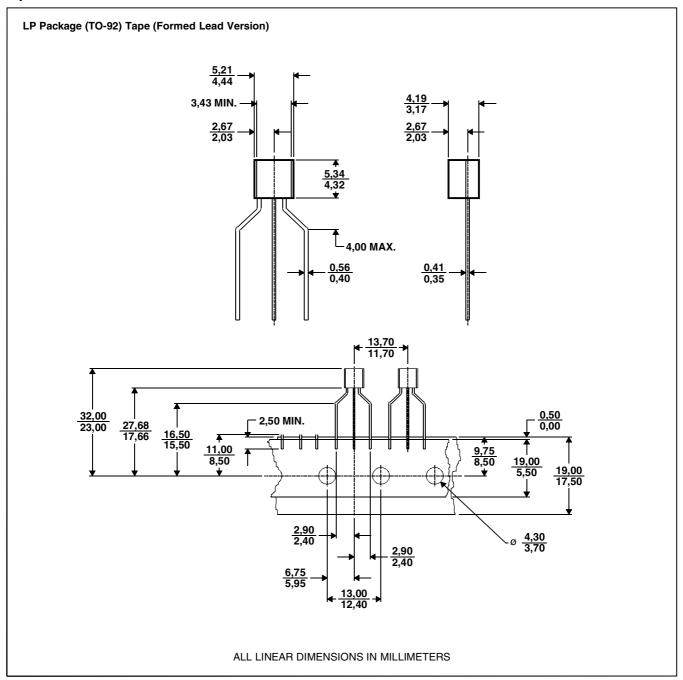


MDXXAR



MECHANICAL DATA

LPR tape dimensions



MDXXAS