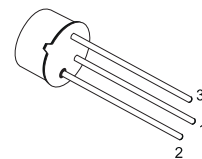


EPITAXIAL PLANAR NPN

■ HIGH VOLTAGE GENERAL PURPOSE

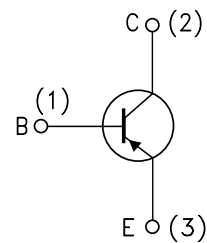
DESCRIPTION

The 2N790A is a silicon Planar Epitaxial NPN transistor in Jedec TO-18 metal case. It is suitable for a wide variety of amplifier and switching applications.



TO-18

INTERNAL SCHEMATIC DIAGRAM



SC08810

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage ($I_E = 0$)	120	V
V_{CEO}	Collector-Emitter Voltage ($I_B = 0$)	80	V
V_{EBO}	Emitter-Base Voltage ($I_C = 0$)	7	V
I_C	Collector Current	500	mA
P_{tot}	Total Dissipation at $T_{amb} \leq 25^\circ\text{C}$ at $T_C \leq 25^\circ\text{C}$	0.5 1.8	W W
T_{stg}	Storage Temperature	-55 to 175	$^\circ\text{C}$
T_j	Max. Operating Junction Temperature	175	$^\circ\text{C}$

2N720A

THERMAL DATA

R _{thj-case}	Thermal Resistance Junction-Case	Max	83.3	°C/W
R _{thj-amb}	Thermal Resistance Junction-Ambient	Max	300	°C/W

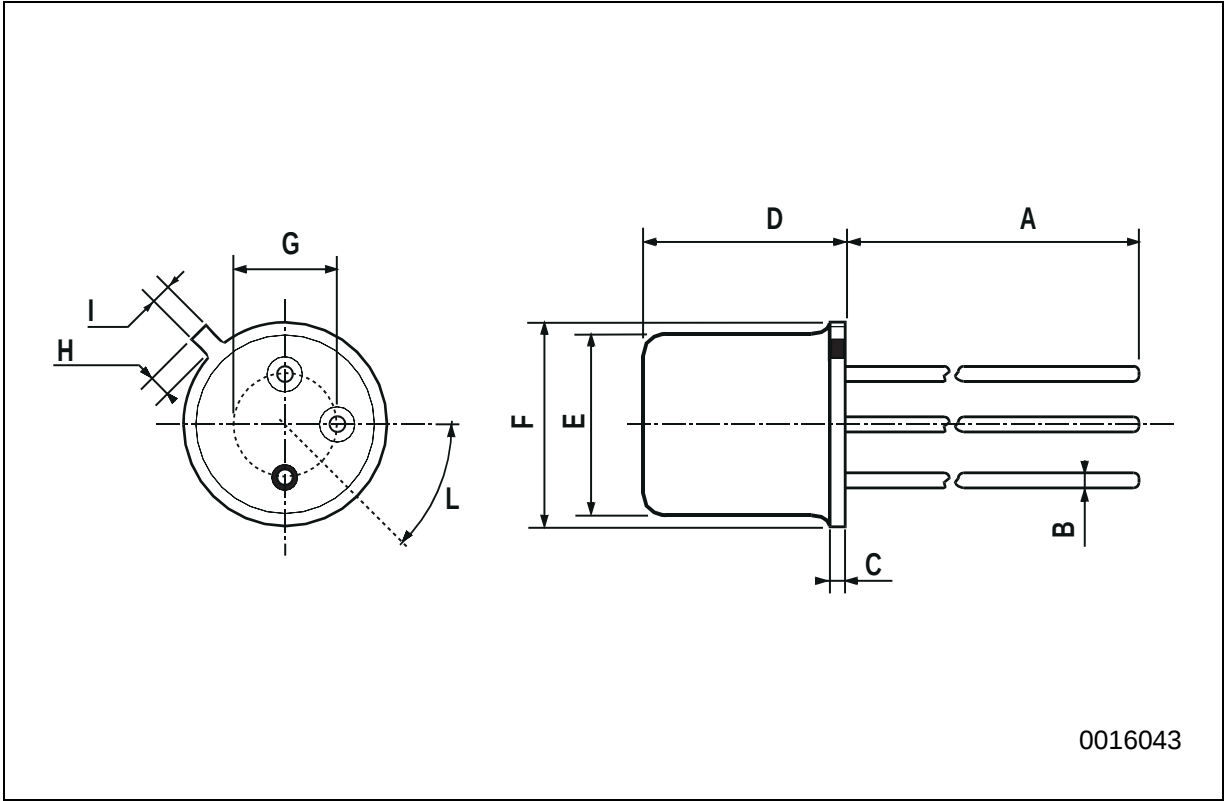
ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I _{CBO}	Collector Cut-off Current (I _E = 0)	V _{CB} = 90 V			10	nA
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _E = 0)	I _C = 100 µA	120			V
V _{(BR)CEO} *	Collector-Emitter Breakdown Voltage (I _B = 0)	I _C = 30 mA	80			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (I _C = 0)	I _E = 100 µA	7			V
I _{EBO}	Emitter Cut-off Current (I _E = 0)	V _{EB} = 5 V			10	nA
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	I _C = 50 mA I _C = 150 mA			1.2 5	V V
V _{BE(sat)} *	Base-Emitter Saturation Voltage	I _C = 50 mA I _C = 150 mA			0.9 1.3	V V
h _{FE} *	DC Current Gain	I _C = 100 µA I _C = 10 mA I _C = 150 mA				
h _{fe} *	Small Signal Current Gain	V _{CE} = 10 V V _{CE} = 10 V V _{CE} = 10 V	20 35 40		120	
C _{CBO}	Collector-Base Capacitance	I _E = 0 V _{CB} = 10 V f = 1 MHz			15	pF
C _{EBO}	Emitter-Base Capacitance	I _C = 0 V _{EB} = 0.5 V f = 1 MHz			85	pF

* Pulsed: Pulse duration = 300 µs, duty cycle ≤ 1 %

TO-18 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		12.7			0.500	
B			0.49			0.019
D			5.3			0.208
E			4.9			0.193
F			5.8			0.228
G	2.54			0.100		
H			1.2			0.047
I			1.16			0.045
L	45°			45°		



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