



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DC9018

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

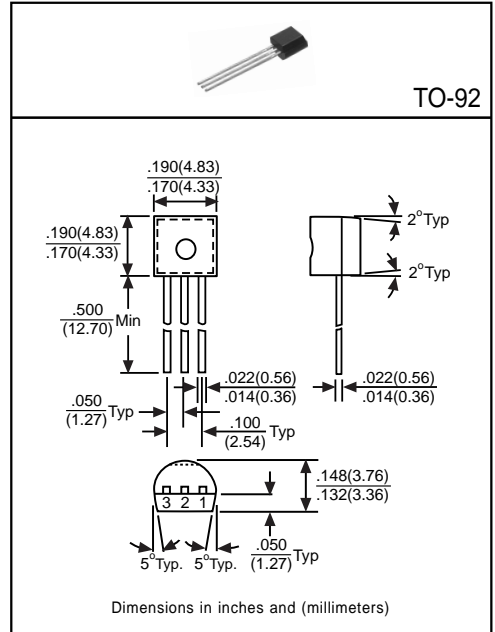
Designed for use in AM/FM amplifier and local oscillator of FM/VHF tuner.

Pinning

- 1 = Emitter
- 2 = Base
- 3 = Collector

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CEO}	15	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	50	mA
Base Current	I _B	10	mA
Total Power Dissipation	P _D	400	mW
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-55 to +150	°C



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV _{CB0}	30	-	-	V	I _C =100μA
Collector-Emitter Breakdown Voltage	BV _{CEO}	15	-	-	V	I _C =1mA
Emitter-Base Breakdown Voltage	BV _{EBO}	5	-	-	V	I _E =100μA
Collector Cutoff Current	I _{CBO}	-	-	50	nA	V _{CB} =12V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	-	0.5	V	I _C =10mA, I _B =1mA
DC Current Gain ⁽¹⁾	h _{FE}	28	-	270	-	I _C =1mA, V _{CE} =5V
Transition Frequency	f _T	700	1100	-	MHz	I _C =5mA, V _{CE} =5V
Output Capacitance	C _{ob}	-	1.3	1.7	pF	V _{CB} =10V, I _E =0

(1)Pulse Test: Pulse Width ≤380μs, Duty Cycle ≤2%

Classification of h_{FE}

Rank	D	E	F	G	H	I	J
Range	28~45	39~60	54~80	72~108	97~146	132~198	180~270