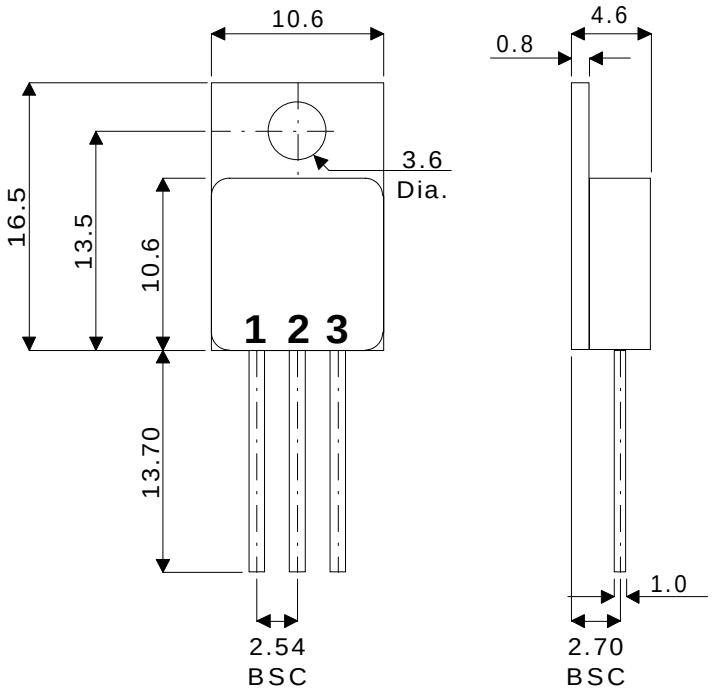
2N5337A-220M

MECHANICAL DATA
Dimensions in mm



TO220 PACKAGE

Pin 1 – Base **Pin 2** – Collector **Pin 3** – Emitter

SILICON NPN EPITAXIAL BASE IN TO220 METAL PACKAGE

FEATURES

- **HERMETIC METAL PACKAGES**
- **HIGH RELIABILITY**
- **MILITARY AND SPACE OPTIONS**
- **SCREENING TO CECC LEVELS**
- **FULLY ISOLATED**

APPLICATIONS

- **POWER LINEAR AND SWITCHING APPLICATIONS**
- **GENERAL PURPOSE POWER**

ABSOLUTE MAXIMUM RATINGS (T_{case}=25°C unless otherwise stated)

V_{CBO}	Collector - Base voltage (I_E = 0)	80V
V_{CEO}	Collector - Emitter voltage (I_B = 0)	80V
V_{EBO}	Emitter - Base voltage (I_C = 0)	6V
I_C	Collector current	5A
I_B	Base current	1A
P_{tot}	Total power dissipation at T_{case} = 25°C	10W
T_{stg}	Storage Temperature	–65 to 200°C
T_j	Junction Temperature	200°C

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2N5337A-220M

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

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_{CBO}	Collector cut-off current	I_E = 0	V_{CB} = 80V			10	µA
I_{CEO}	Collector cut-off current	I_B = 0	V_{CE} = 75V			100	
I_{EBO}	Emitter cut-off current	V_{EB} = 6V				100	
$V_{CEO(sus)}$*	Collector - Emitter Sustaining voltage	I_B = 0	I_C =50mA	80			V
$V_{CE(sat)}$*	Collector - Emitter Saturation voltage	I_C = 5A	I_B = 0.5A			1.2	
		I_C = 2A	I_B = 0.2A			0.7	
$V_{BE(sat)}$*	Base - Emitter Saturation voltage	I_C = 2A	I_B = 0.2A			1.2	
h_{FE}*	DC Current gain	I_C = 0.5A	V_{CE} = 2V	60			
		I_C = 2A	V_{CE} = 2V	60		240	
		I_C = 5A	V_{CE} = 2V	40			
f_T	Transition frequency	I_C = 0.5A	V_{CE} = 10V	10			MHz

*Pulsed : Pulse duration = 300 µs , duty cycle = 1.5%

SWITCHING CHARACTERISTICS

	Parameter	Test Conditions	Max.	Unit
t_{on}	On Time (t_d + t_r)	I_C = 2A V_{CC} = 10V I_{B1} = 0.2A	0.7	µs
t_s	Storage Time	I_C = 2A V_{CC} = 10V	2.0	µs
t_r	Fall Time	I_{B1} = –I_{B2} = 0.2A	0.8	µs

THERMAL DATA

$R_{THj\text{-}case}$	Thermal resistance junction - case	Max. 17.5°C/W

** Smooth flat surface using thermal grease.

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