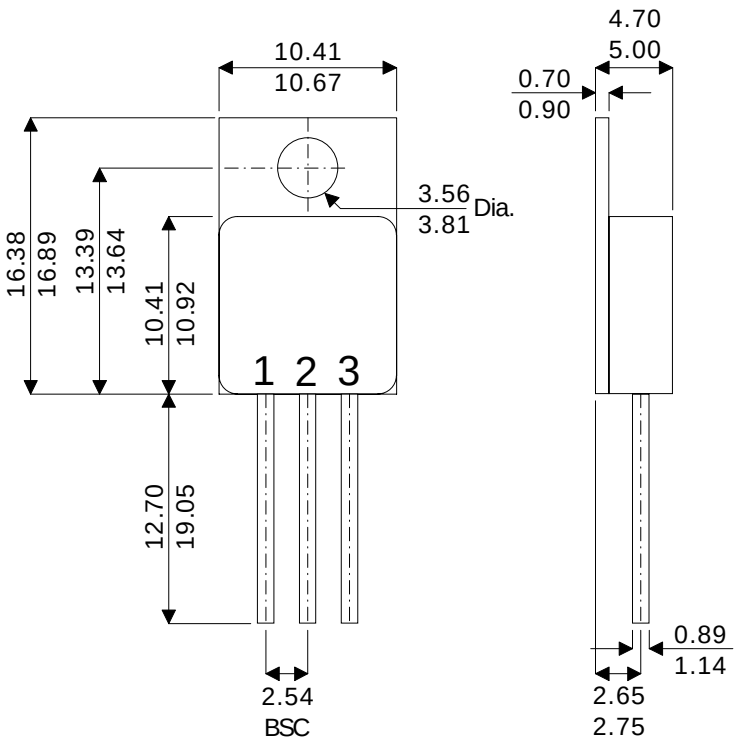
2N2880-220M

MECHANICAL DATA
Dimensions in mm (inches)



TO–220M (TO-257AB) – Metal Package

Pad 1 – Base Pad 2 – Collector Pad 3 – Emitter

NPN POWER SILICON TRANSISTOR FOR HI–REL APPLICATIONS

FEATURES

- **HERMETICALLY SEALED TO–220 METAL PACKAGE**
- **ALL LEADS ISOLATED FROM CASE**
- **CECC, JAN AND SPACE LEVEL SCREENING OPTIONS AVAILABLE**

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

V_{CBO}	Collector – Base Maximum Voltage	110V
V_{CEO}	Collector – Emitter Maximum Voltage	80V
V_{EBO}	Emitter – Base Maximum Voltage	8.0V
I_C	Maximum Continious Collector Current	5.0A
I_B	Maximum Continious Base Current	500mA
P_{TOT}	Power Dissipation @ T_C = 100°C	20W
	Linear Derating Factor > T_C = 100°C	0.2W/°C
T_J , T_{stg}	Operating and Storage Temperature Range	–65°C to 200°C
$R_{\theta JC}$	Thermal Resistance Junction to Case	5.0°C/W max.

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

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_{CEO}	Collector – Emitter Cut-off Current	V_{CE} = 50V	I_B = 0			100	µA
I_{CBO}	Collector – Base Cut-off Current	V_{CE} = 80V	I_E = 0			0.2	
I_{EBO}	Emitter – Base Cut-off Current	V_{EB} = 4V	I_C = 0			0.2	
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage	I_C = 100mA		80			V
$V_{(BR)CEO}$	Collector – Base Breakdown Voltage	I_C = 10µA		100			
$V_{(BR)EBO}$	Base – Emitter Breakdown Voltage	I_E = 10µA		8.0			
$V_{BE(sat)}$	Base – Emitter Saturation Voltage	I_C = 1.0A	I_B = 0.1A			1.2	
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	I_C = 1.0A	I_B = 0.1A			0.25	
		I_C = 5.0A	I_B = 0.5A			2.0	
h_{FE}	DC Current Gain	I_C = 1.0A	V_{CE} = 5V	40		120	—
		I_C = 0.5A	V_{CE} = 5V	15			
h_{fe}	High Frequency Forward Current Gain	I_C = 1.0A f = 10MHz	V_{CE} = 10V	3.0			—
C_{obo}	Open Circuit Output Capacitance	f = 1MHz	V_{CB} = 10V			150	pF
t_r	Rise Time	I_C = 1.0A				0.3	µs
t_s	Storage Time	V_{CC} = 20V				2.0	
t_f	Fall Time	I_{B1}= 100mA				0.35	

*Pulsed : Pulse duration ≤ 300 µs , duty cycle ≤ 2.0%

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