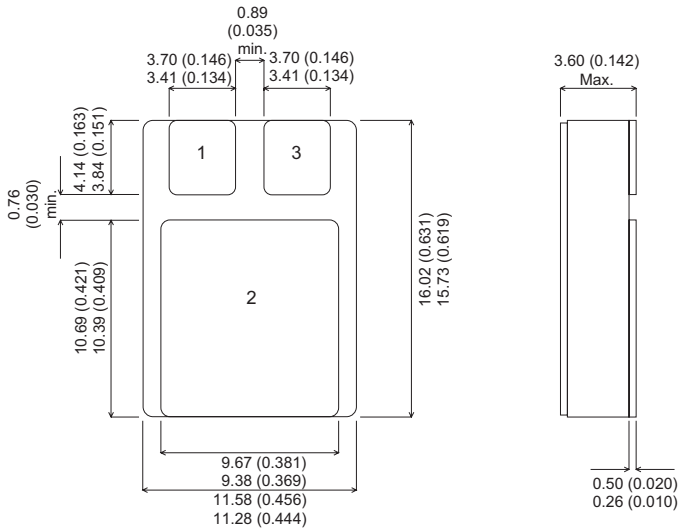
2N3741 SMD

MECHANICAL DATA
Dimensions in mm



SMD1

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

MEDIUM POWER PNP SILICON POWER TRANSISTOR

- **LOW SATURATION VOLTAGE**
- **HIGH GAIN**

FEATURES

- **Hermetically sealed Surface Mount Package.**
- **Small Footprint - efficient use of PCB space.**
- **Lightweight**
- **High Packing Densities**

Complementary to NPN
2N3766SMD

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

V_{CBO}	Collector – Base Voltage	80V
V_{CEO}	Collector – Emitter Voltage (I_B = 0)	80V
V_{EBO}	Emitter – Base Voltage (I_C = 0)	7V
I_C	Collector Current	4A
$I_{C(PK)}$	Peak Collector Current	10A
I_B	Base Current	2A
P_{tot}	Total Dissipation at T_{case} = 25°C	50W
T_{stg}	Operating and Storage Temperature Range	–65 to 200°C

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SEME LAB

2N3741SMD

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

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
	ELECTRICAL CHARACTERISTICS						
$V_{CEO(sus)}$*	Collector – Emitter Sustaining Voltage	I_C = 100mA	I_B = 0	80			V
I_{CBO}	Collector Base Cut–Off Current	V_{CB} = 80V	I_E = 0			100	µA
I_{CEO}	Collector Emiiter Cut–Off Current	V_{CE} = 60V	I_B = 0			1.0	mA
I_{CEX}	Collector Cut–Off Current	V_{CE} = 80V	$V_{BE(OFF)}$ = 1.5V			100	µA
		V_{CE} = 60V	$V_{BE(OFF)}$ = 1.5V			1	mA
			T_C = 150°C				
I_{EBO}	Emitter Base Cut–Off Current	V_{EB} = 7V				0.5	mA
h_{FE}*	DC Current Gain	I_C = 100mA	V_{CE} = 1V	40			—
		I_C = 250mA	V_{CE} = 1V	30		100	
		I_C = 500mA	V_{CE} = 1V	20			
		I_C = 1A	V_{CE} = 1V	10			
$V_{CE(sat)}$*	Collector – Emitter Saturation Voltage	I_C = 1A	I_B = 125mA			0.6	V
V_{BE}*	Base – Emitter Saturation Voltage	I_C = 250mA	I_B = 1V			1.0	
	DYNAMIC CHARACTERISTICS						
f_t	Transition Frequency	I_C = 100mA	V_{CE} = 10V f = 1MHz	3 4			MHz
C_{ob}	Output Capacitance	V_{CB} = 10V	I_C = 0 f = 100KHz			100	pF
h_{fe}	Small Signal Current Gain	I_C = 50mA	V_{CE} = 10V f = 1KHz	25			—

* Pulse Width ≤ 300µs , Duty Cycle < 2%

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