

**TRANSISTOR (NPN)**
**Plastic-Encapsulate Transistor**
**FEATURES**

Power dissipation

$$P_{CM}: 0.75W (T_{amb}=25^{\circ}C)$$

Collector current

$$I_{CM}: 5A$$

Collector-base voltage

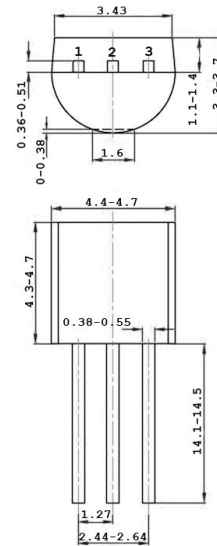
$$V_{(BR)CBO}: 42V$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^{\circ}C \text{ to } +150^{\circ}C$$

**TO-92**

1. EMITTER
2. COLLECTOR
3. BASE



UNIT:mm

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ELECTRICAL CHARACTERISTICS**

Parameters	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10 \mu A, I_E=0$	42		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	22		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10 \mu A, I_C=0$	6		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=30V, I_E=0$		0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6V, I_C=0$		0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=0.15mA$	150		
	$h_{FE(2)}$	$V_{CE}=2V, I_C=500mA$	340	950	
	$h_{FE(3)}$	$V_{CE}=2V, I_C=2A$	150		
Collector-emitter saturation voltage	$V_{CEsat}$	$I_C=3A, I_B=100mA$		0.35	V

**CLASSIFICATION OF  $h_{FE(1)}$** 

Rank	R	T
Range	340-600	560-950