



## SOT-23-3L Plastic-Encapsulate Transistors

### 2SC3052

TRANSISTOR (NPN)

#### FEATURES

Power dissipation

$$P_{CM}: 0.15 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

$$I_{CM}: 0.2 \text{ A}$$

Collector-base voltage

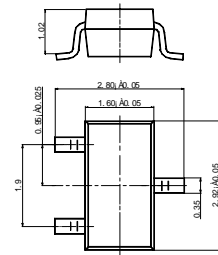
$$V_{(BR)CBO}: 50 \text{ V}$$

Operating and storage junction temperature range

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

#### SOT-23-3L

1. BASE
2. EMITTER
3. COLLECTOR



#### ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=100\mu\text{A}, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=50 \text{ V}, I_E=0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6 \text{ V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=6 \text{ V}, I_C=1 \text{ mA}$	150		800	
	$h_{FE(2)}$	$V_{CE}=6 \text{ V}, I_C=0.1 \text{ mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100 \text{ mA}, I_B=10 \text{ mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100 \text{ mA}, I_B=10 \text{ mA}$			1	V
Transition frequency	$f_T$	$V_{CE}=6 \text{ V}, I_C=10 \text{ mA}$	180			MHz

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

Marking	LE	LF	LG
Range	150-300	250-500	400-800