

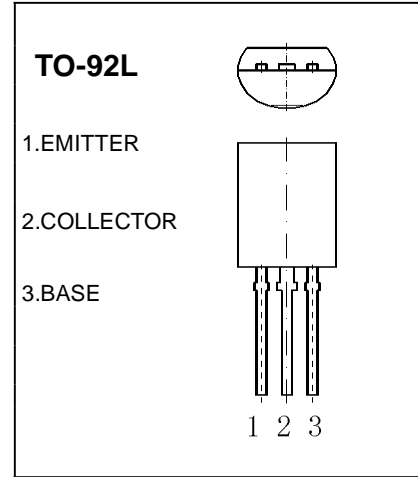


**TO-92L Plastic-Encapsulate Transistors**

**KSC2331** TRANSISTOR ( NPN )

**FEATURE**

- Power dissipation  
 $P_{CM} : 1 \quad W \quad (T_{amb}=25^{\circ}C)$
- Collector current  
 $I_{CM} : 0.7 \quad A$
- Collector-base voltage  
 $V_{(BR)CBO} : 80 \quad V$
- Operating and storage junction temperature range  
 $T_J, T_{stg} : -55^{\circ}C \text{ to } +150^{\circ}C$



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu A, I_E = 0$	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10 mA, I_B = 0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10 \mu A, I_C = 0$	8			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = 60V, I_E = 0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = 2V, I_C = 50mA$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			0.7	V
Base-emitter voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.2	V
Collector output capacitance	$C_{ob}$	$(V_{CB} = 10V, I_E = 0, f = 1MHz)$		8		pF
Transition frequency	$f_T$	$V_{CE} = 10V, I_C = 50mA$	30			MHz

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

Rank	R	O	Y
Range	40-80	70-140	120-240