



TO-92L Plastic-Encapsulate Transistors

KSC2331 TRANSISTOR (NPN)

FEATURE

Power dissipation

$$P_{CM} : 1 \quad W \quad (T_{amb}=25^{\circ}C)$$

Collector current

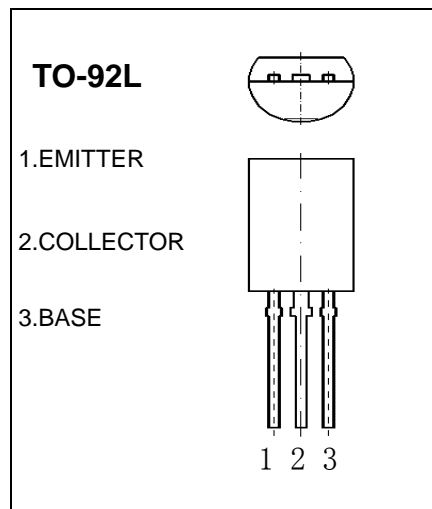
$$I_{CM} : 0.7 \quad A$$

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 ($T_{amb}=25^{\circ}C$ 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	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	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	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
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