

KSC815 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM}: 0.4 \text{ W (Tamb=25°C)}$$

Collector current

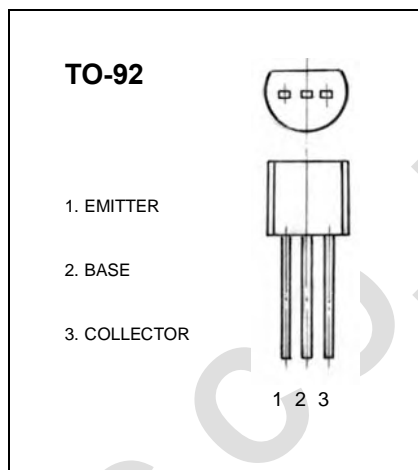
$$I_{CM}: 0.2 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 60 \text{ V}$$

Operating and storage junction temperature range

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



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10 \text{ mA}, I_B=0$	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=45V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=3V, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=1V, I_C=50mA$	40		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150mA, I_B=15 \text{ mA}$			0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=150mA, I_B=15 \text{ mA}$			1.1	V
Transition frequency	f_T	$V_{CE}=10V, I_C=10mA$	100			

CLASSIFICATION OF h_{FE}

Rank	R	O	Y	G
Range	40-80	70-140	120-240	200-400