



TO-92 Plastic-Encapsulate Transistors

KSC815 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 0.4 W ($T_{amb}=25^{\circ}C$)

Collector current

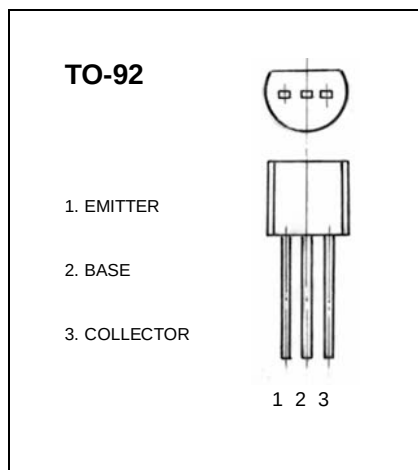
I_{CM} : 0.2 A

Collector-base voltage

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

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ 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	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	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}	$V_{CB}=45\text{ V}, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=3\text{ V}, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=1\text{ V}, I_C=50\text{ mA}$	40		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150\text{ mA}, I_B=15\text{ mA}$			0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=150\text{ mA}, I_B=15\text{ mA}$			1.1	V
Transition frequency	f_T	$V_{CE}=10\text{ V}, I_C=10\text{ mA}$	100			

CLASSIFICATION OF h_{FE}

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