

TO-92 Plastic-Encapsulate Transistors

FEATURES

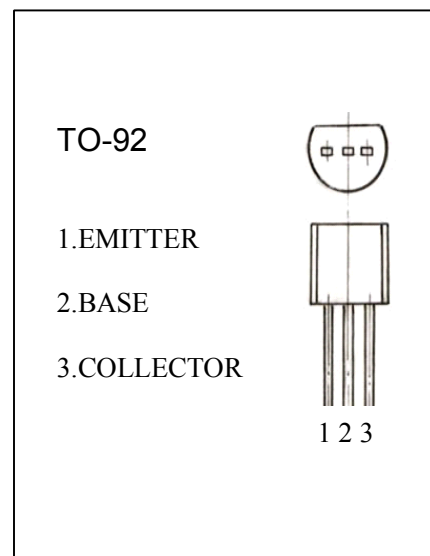
Power dissipation

PCM : 1 W (TA=25°C)

: 2 W (TC=25°C)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
VCBO	Collector-Base Voltage	40	V
VCEO	Collector-Emitter Voltage	25	V
VEBO	Emitter-Base Voltage	5	V
IC	Collector Current -Continuous	1.5	A
Tj	Junction Temperature	150	°C
Tstg	Storage Temperature	-55-150	°C



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.1mA, I_B=0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=40V, I_E=0$			0.1	μA
Emitter cut-off current	I_{CEO}	$V_{CE}=20V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=100mA$	85		400	
	$h_{FE(2)}$	$V_{CE}=1V, I_C=800mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=800mA, I_B=80mA$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=800mA, I_B=80mA$			1.2	V
Base-emitter voltage	V_{BE}	$V_{CE}=1V, I_C=10mA$			1	V
Transition frequency	f_T	$V_{CE}=10V, I_C=50mA, f=30MHz$	100			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	B	C	D	D3
Range	85-160	120-200	160-300	300-400