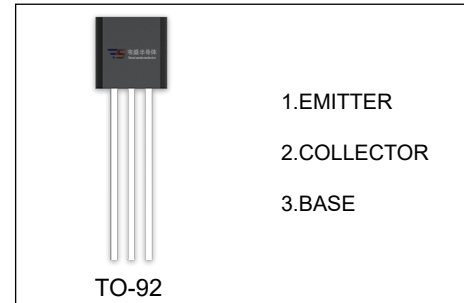


2SD2097 TRANSISTOR (NPN)

FEATURES

- Low $V_{CE(sat)} \cdot V_{CE(sat)} = 0.25V$ (Typ.) ($I_C/I_B = 4A / 0.1A$)
- Excellent Dc current gain characteristics



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SD2097	TO-92	Bulk	1000pcs/Bag
2SD2097-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	5	A
P_C	Collector Power Dissipation	0.625	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}C$

T_a=25 °C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=40V, I_E=0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.5	μA
DC current gain	h_{FE}	$V_{CE}=2V, I_C=0.5A$	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=4A, I_B=100mA$			1	V
Transition frequency	f_T	$V_{CE}=6V, I_C=50mA, f=100MHz$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB}=20V, I_E=0, f=1MHz$		30		pF

CLASSIFICATION OF h_{FE}

Rank	Q	R
Range	120-270	180-390