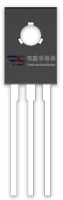
2SC2314 TRANSISTOR (NPN)



TO-126

1.EMITTER
2.COLLECTOR
3.BASE

FEATURES

- Transceiver Driver Applications

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SC2314	TO-126	Bulk	200pcs/Bag
2SC2314-TU	TO-126	Tube	60pcs/Tube

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	75	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1	A
P_C	Collector Power Dissipation	0.75	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	167	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	75			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=40V,I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			1	μA
DC current gain	h_{FE}	V_{CE}=5V, I_C=500mA	60		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA,I_B=50mA			0.6	V
Base-emitter saturation 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			25	pF
Transition frequency	f_T	V_{CE}=10V,I_C=50mA	180			MHz

CLASSIFICATION OF h_{FE}

RANK	D	E	F
RANGE	60-120	100-200	160-320