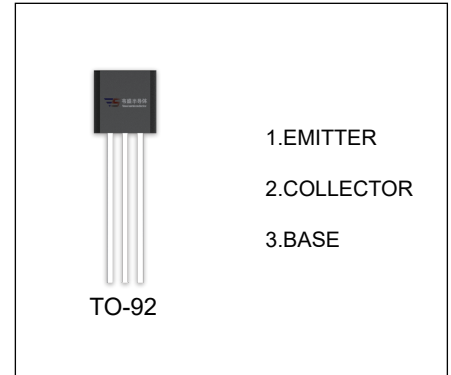


KSC5019 TRANSISTOR (NPN)

FEATURES

- Low $V_{CE(sat)}$
- General Purpose Amplifier Transistor



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
KSC5019	TO-92	Bulk	1000pcs/Bag
KSC5019-TA	TO-92	Tape	2000pcs/Box

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	10	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	2	A
P_C	Collector Power Dissipation	750	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	166	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

T_a=25 °C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 0.1mA, I _E =0	30			V
Collector-emitter breakdown	V _{(BR)CEO}	I _C =10mA, I _B =0	10			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1mA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =30V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =6V, I _C =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =1V, I _C =500mA	140		600	
	h _{FE(2)}	V _{CE} =1V, I _C =2A	70			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =2A, I _B =50mA			0.5	V
Base-emitter voltage	V _{BE}	V _{CE} =1V, I _C =500mA			1.5	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		27		pF
Transition frequency	f _T	V _{CE} =1V, I _C = 500mA		150		MHz

CLASSIFICATION OF h_{FE(1)}

RANK	L	M	N	P
RANGE	140-240	200-330	300-450	420-600