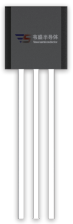
KTD1146 TRANSISTOR (NPN)



TO-92

1.EMITTER
2.COLLECTOR
3.BASE

FEATURES

- Low $V_{CE(sat)}$.
- High Performance at Low Supply Voltage.

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
KTD1146	TO-92	Bulk	1000pcs/Bag
KTD1146-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	5	A
P_C	Collector Power Dissipation	0.625	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	200	℃/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= 0.1mA ,I_E=0	40			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=0.01mA,I_C=0	7			V
Collector cut-off current	I_{CBO}	V_{CB}=20V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=7V,I_C=0			0.1	μA
DC current gain	h_{FE}^*	V_{CE}=2V, I_C=500mA	120		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=3A,I_B=60mA			0.4	V
Transition Frequency	f_T	V_{CE}=6V,I_C=50mA	20			MHz

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

CLASSIFICATION OF h_{FE}

RANK	Q	Y	GR
RANGE	120-240	200-400	350-700