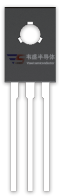
KSD1691 TRANSISTOR (NPN)



TO-126

1.EMITTER
2.COLLECTOR
3.BASE

FEATURES

- Low Collector-Emitter Saturation Voltage & Large Collector Current
- High Power Dissipation: PC = 1.3W (Ta=25°C)

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
KSD1691	TO-126	Bulk	200pcs/Bag
KSD1691-TU	TO-126	Tube	60pcs/Tube

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current (DC)	5	A
P_C	Collector Power Dissipation (T_a = 25 ℃)	1.3	W
	Collector Power Dissipation (T_c = 25 ℃)	20	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=100μA,I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	7			V
Collector cut-off current	I_{CBO}	V_{CB}=50V,I_E=0			10	μA
Emitter cut-off current	I_{EBO}	V_{EB}=7V,I_C=0			10	μA
DC current gain	$h_{FE(1)}$	V_{CE}=1V,I_C=2A	100		400	
	$h_{FE(2)}$	V_{CE}=1V,I_C=0.1A	60			
	$h_{FE(3)}$	V_{CE}=1V,I_C=5A	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A,I_B=0.2A			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=2A,I_B=0.2A			1.2	V
Turn ON Time	t_{on}	V_{CC} = 10V, I_C = 2A , I_{B1}=-I_{B2}=0.2A,R_L=5Ω			1	μS
Storage Time	t_{stg}				2.5	μS
Fall Time	t_f				1	μS

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	G
Range	100-200	160-320	200-400