TO-220 Plastic-Encapsulate Transistors

3DD13007 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 2 W (Tamb=25℃)

Collector current

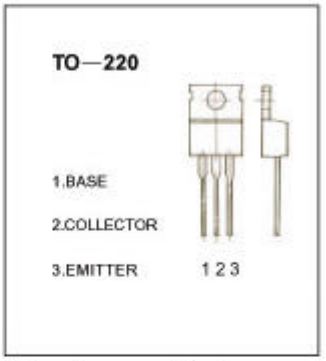
I_{CM}: 8 A

Collector-base voltage

$V_{(BR)CBO}$: 700 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃



ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	I_C= 1mA, I_E=0	700			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C= 10mA, I_B=0	400			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E= 1mA, I_C=0	9			V
Collector cut-off current	I_{CBO}	V_{CB}= 700V, I_E=0			1	mA
Emitter cut-off current	I_{EBO}	V_{EB}= 9 V, I_C=0			100	μA
DC current gain	$h_{FE\ (1)}$	V_{CE}= 5V, I_C= 2 A	8		40	
	$h_{FE\ (2)}$	V_{CE}=5 V, I_C=5A	5		30	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=2A,I_B=0.4A			1	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=2A, I_B= 0.4A			1.2	V
Transition frequency	f_T	I_C=500mA,V_{CE}=10V f=1MHz	4			MHz
Collector output capacitance	C_{ob}	V_{CE}=10,I_E=0 , f=0.1MHz		80		pF
Fall time	t_f	Vcc=125V, I_C=5A			0.7	μs
Storage time	t_s	I_{B1}=-I_{B2}=1A			3	μs

CLASSIFICATION OF $h_{FE(1)}$

Rank						
Range	8-15	15-20	20-25	25-30	30-35	35-40