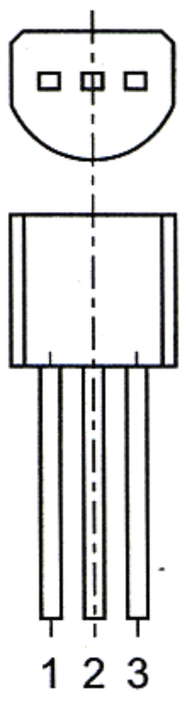
TO-92 Plastic-Encapsulate Transistors

M28S TRANSISTOR(NPN)



TO-92

1.EMITTER

2.COLLECTOR

3.BASE

FEATURES

Power dissipation

P_{CM}: 0.625W (Tamb=25℃)

Collector current

I_{CM}: 1 A

Collector-base. voltage

$V_{(BR)CBO}$: 40 V

Operating and storage junction temperature range

T_{stg}: -55℃ to + 150℃

T_J: 150℃

ELECTRICAL CHARACTERISTICS

(Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 0.1 μ A, I_E=0	40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= 1 mA, I_B=0	20		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 0.1mA, I_C=0	6		V
Collector cut-off current	I_{CBO}	V_{CB}= 40 V, I_E=0		1	μ A
Collector cut-off current	I_{CEO}	V_{CE}= 20 V, I_B=0		5	μ A
Emitter cut-off current	I_{EBO}	V_{EB}= 5 V, I_C=0		0.1	μ A
DC current gain	$h_{FE(1)}$	V_{CE}= .1 V, I_C= 1 mA	290		
	$h_{FE(2)}$	V_{CE}= 1 V, I_C= 100 mA	300	1000	
	$h_{FE(3)}$	V_{CE}= 1 V, I_C= 300 mA	300		
	$h_{FE(4)}$	V_{CE}= 1 V, I_C= 500 mA	300		
Collector-emitter saturation voltage	V_{CEsat}	I_C= 600 mA, I_B= 20 mA		0.55	V
Transition frequency	f_T	V_{CE}= 10 V, I_C= 50 mA f =30MHz	100		MHz

CLASSIFICATION OF $h_{FE(2)}$

Rank	B	C	D
Range	300-550	500-700	650-1000