TO-92 Plastic-Encapsulate Transistors

2N3416 TRANSISTOR（ NPN ）

FEATURES

Power dissipation

P_{CM}: 0.625 W（Tamb=25℃）

Collector current

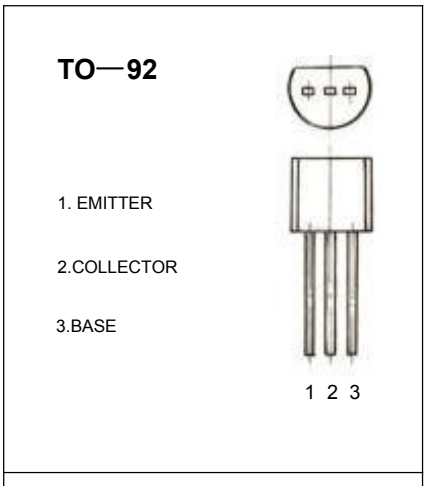
I_{CM}: 0.5 A

Collector-base voltage

$V_{(BR)CBO}$: 50 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=10μA, I_E=0	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10μA，I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA，I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=25V, I_E=0			100	μA
Collector cut-off current	I_{CEO}	V_{CE}=18V, I_E=0			15	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V，I_C=0			100	μA
DC current gain	H_{FE}（1）	V_{CE}=4.5V, I_C=2mA	75		225	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=50mA, I_B=3mA			0.3	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=50mA, I_B=3mA			1.3	V
Small-Signal Current Gain	hfe	V_{CE}=4.5V, I_C=2mA f=1kHz	75			kHz

CLASSIFICATION OF HFE

Rank	1	2	3
Range	75-120	120-180	180-225