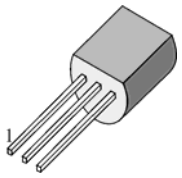
EPITAXIAL PLANAR NPN Transistor

MPS2222A

FEATURE

- ★ Collector-Emitter Voltage: V_{CEO}= 40V
- ★ Collector Power Dissipation: P_C (max)=625mW
- ★ Complement to MPS2907A
- ★ General Purpose Transistor

TO – 92



1. Emitter 2. Base 3. Collector

Absolute Maximum Ratings Ta = 25° C

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	75	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6.5	V
I_C	Collector Current	0.6	A
P_C	Collector Power Dissipation	0.625	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 - 150	°C

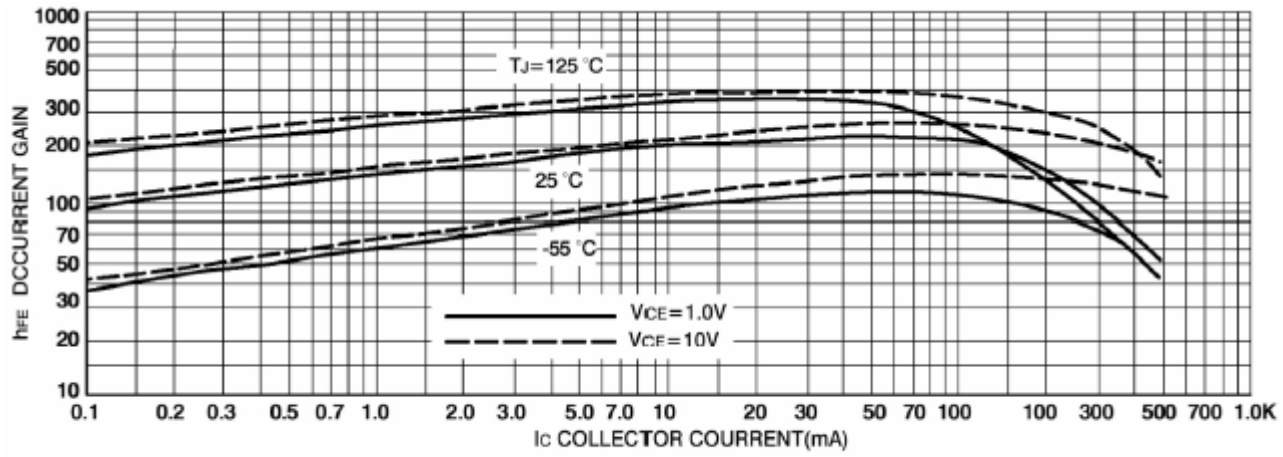
Electrical Characteristics Ta = 25° C

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C=10 μ A，I_E=0	75			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C=10mA，I_B=0	40			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E=10 μ A，I_C=0	6.5			V
I_{CBO}	Collector Cut-off Current	V_{CB}=70V, I_E=0			0.1	μ A
I_{CEO}	Collector-Base Cut-off Current	V_{CE}=35V, I_B=0			0.1	μ A
I_{EBO}	Emitter Cut-off Current	V_{EB}=3V, I_C=0			0.1	μ A
$H_{FE(1)}$	DC Current Gain	V_{CE}=10V, I_C=150mA	100		300	
$H_{FE(2)}$		V_{CE}=10V, I_C=1mA	60			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C=500mA, I_B=50mA			1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C=500mA, I_B=50mA			2	V
f_T	Current Gain Bandwidth Product	V_{CE}=20V, Ic=20mA F=100MHz	300			MHz

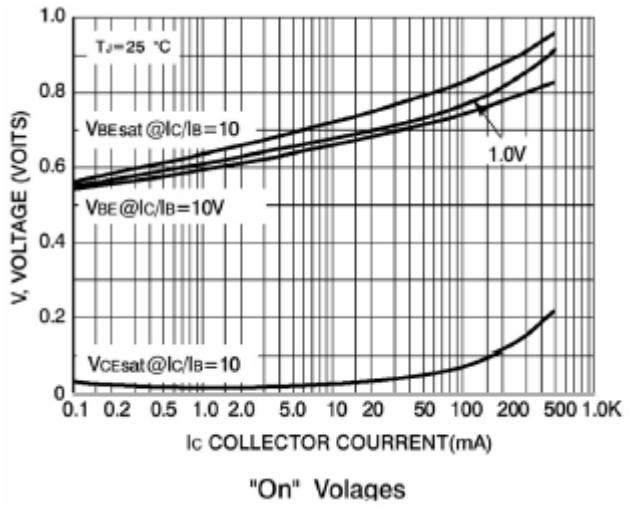
h_{FE} Classification

Classification	L	H
h_{FE}	100-200	200-300

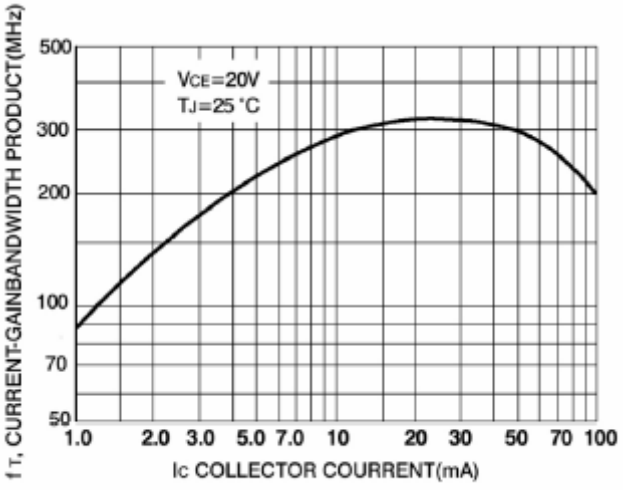
Typical Characteristics



DC Current Gain



"On" Volages



Current-Gain Bandwidth Product

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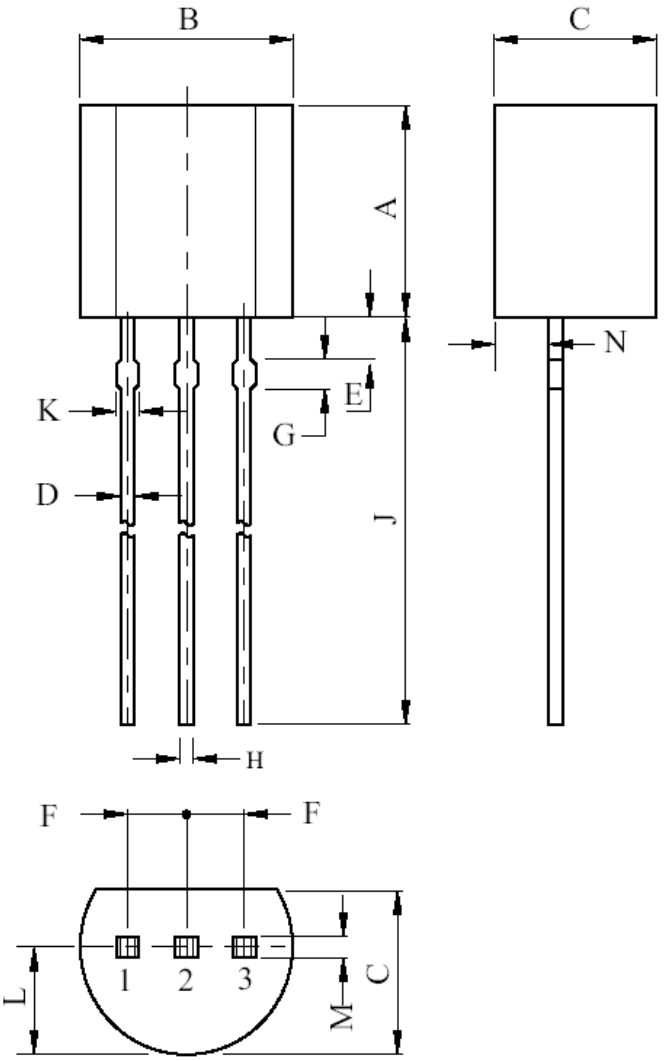

DIM	MILLIMETERS
A	4.70 MAX
B	4.80 MAX
C	3.70 MAX
D	0.45
E	1.00
F	1.27
G	0.85
H	0.45
J	14.00 ±0.50
K	0.55 MAX
L	2.30
M	0.45 MAX
N	1.00