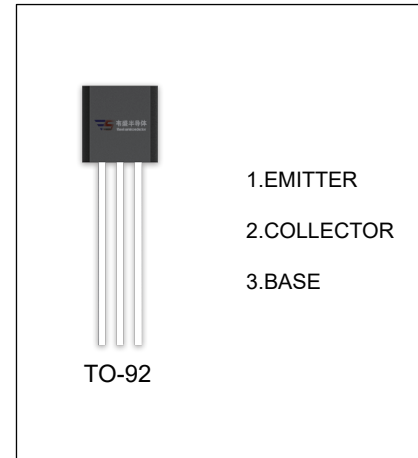


MPS2907A TRANSISTOR (PNP)

FEATURES

- Complementary NPN Type available (MPS2222A)



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
MPS2907A	TO-92	Bulk	1000pcs/Bag
MPS2907A-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-60	V
V _{CEO}	Collector-Emitter Voltage	-60	V
V _{EB0}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-600	mA
P _D	Collector Power Dissipation	625	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	200	°C /W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

$T_a=25\text{ }^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-50\text{V}, I_E=0$			-10	nA
Collector cut-off current	I_{CEX}	$V_{CE}=-30\text{V}, V_{EB(off)}=-0.5\text{V}$			-50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=-3\text{V}, I_C=0$			-10	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=-10\text{V}, I_C=-0.1\text{mA}$	78			
	$h_{FE(2)}$	$V_{CE}=-10\text{V}, I_C=-150\text{mA}$	100		300	
	$h_{FE(3)}$	$V_{CE}=-10\text{V}, I_C=-500\text{mA}$	52			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-150\text{mA}, I_B=-15\text{mA}$			-0.4	V
	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-0.67	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-150\text{mA}, I_B=-15\text{mA}$			-1	V
	$V_{BE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CE}=-20\text{V}, I_C=-50\text{mA}, f=100\text{MHz}$	200			MHz
Delay time	t_d	$V_{CC}=-30\text{V}, I_C=-150\text{mA}, I_{B1}=-I_{B2}=-15\text{mA}$			10	ns
Rise time	t_r				25	ns
Storage time	t_s	$V_{CC}=-6\text{V}, I_C=-150\text{mA}, I_{B1}=-I_{B2}=-15\text{mA}$			225	ns
Fall time	t_f				60	ns

CLASSIFICATION OF $h_{FE(2)}$

Rank	L	H
Range	100-200	200-300

