

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Ideal for Medium Power Amplification and Switching
- Complementary NPN Type Available (MPS2222A)

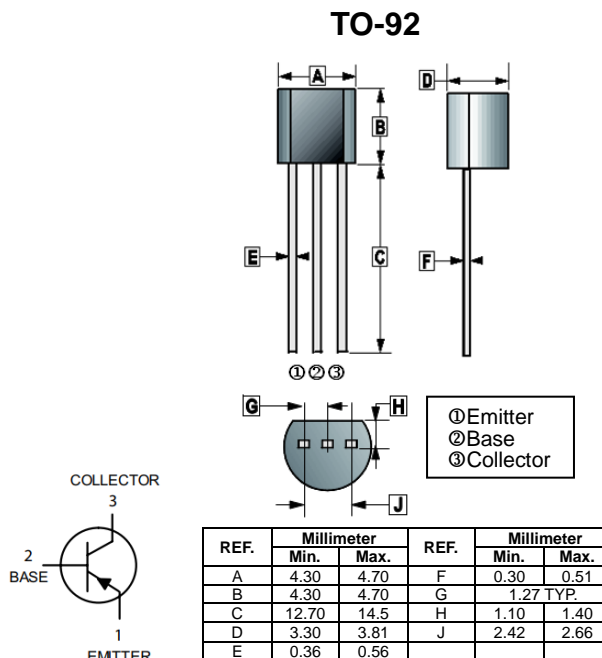
CLASSIFICATION OF h_{FE}

Product-Rank	MPS2907A-L	MPS2907A-H
Range	100~200	200~300

ORDER INFORMATION

Part Number	Type
MPS2907A-□	Lead (Pb)-free
MPS2907A-□-C	Lead (Pb)-free and Halogen-free

*□= h_{FE} Rank



ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-600	mA
Collector Power Dissipation	P_C	625	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	200	$^\circ\text{C} / \text{W}$
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	-60	-	-	V	$I_C = -10\mu\text{A}, I_E = 0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60	-	-	V	$I_C = -10\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -10\mu\text{A}, I_C = 0$
Collector Cut-Off Current	I_{CBO}	-	-	-10	nA	$V_{CB} = -50\text{V}, I_E = 0$
Collector Cut-Off Current	I_{CEX}	-	-	-50	nA	$V_{CE} = -30\text{V}, V_{BE(off)} = -0.5\text{V}$
Emitter Cut-Off Current	I_{EBO}	-	-	-10	nA	$V_{EB} = -3\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	78	-	-		$V_{CE} = -10\text{V}, I_C = -0.1\text{mA}$
	$h_{FE(2)}$	100	-	300		$V_{CE} = -10\text{V}, I_C = -150\text{mA}$
	$h_{FE(3)}$	52	-	-		$V_{CE} = -10\text{V}, I_C = -500\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.4	V	$I_C = -150\text{mA}, I_B = -15\text{mA}$
	$V_{CE(sat)}$	-	-	-0.67	V	$I_C = -500\text{mA}, I_B = -50\text{mA}$
Base to Emitter Voltage	$V_{BE(sat)}$	-	-	-1	V	$I_C = -150\text{mA}, I_B = -15\text{mA}$
	$V_{BE(sat)}$	-	-	-1.2	V	$I_C = -500\text{mA}, I_B = -50\text{mA}$
Transition Frequency	f_T	200	-	-	MHz	$V_{CE} = -20\text{V}, I_C = -50\text{mA}, f = 100\text{MHz}$
Delay Time	t_d	-	10	-	nS	$V_{CC} = -30\text{V}, I_C = -150\text{mA}, I_{B1} = -I_{B2} = -15\text{mA}$
Rise Time	t_r	-	25	-		
Storage Time	t_s	-	225	-		
Fall Time	t_f	-	60	-		

TYPICAL CHARACTERISTICS

