Elektronische Bauelemente

MPSA05

NPN Plastic Encapsulated Transistor

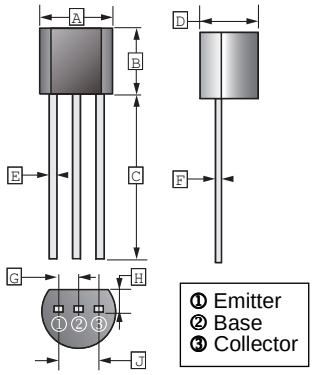
RoHS Compliant Product

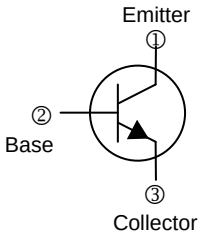
A suffix of "-C" specifies halogen & lead-free

FEATURES

- General Purpose Amplifier

TO-92





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.70	F	0.30	0.51
B	4.30	4.70	G	1.27 TYP.	
C	12.70	-	H	1.10	1.40
D	3.30	3.81	J	2.42	2.66
E	0.36	0.56	K	0.36	0.76

ABSOLUTE MAXIMUM RATINGS (T_A=25℃ 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}	4	V
Collector Current - Continuous	I_C	0.5	A
Collector Power Dissipation	P_C	625	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	200	℃/W
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	℃

ELECTRICAL CHARACTERISTICS(T_A=25℃ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	60	-	-	V	I_C=100μA, I_E=0
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	60	-	-	V	I_C=1mA, I_B=0
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	4	-	-	V	I_E=100μA, I_C=0
Collector Cut-Off Current	I_{CBO}	-	-	0.1	μA	V_{CB}=60 V, I_E=0
Collector Cut-Off Current	I_{CEO}	-	-	0.1	μA	V_{CE}=60V, I_B=0
Emitter Cut-Off Current	I_{EBO}	-	-	1	μA	V_{EB}=3V, I_C=0
DC Current Gain	$h_{FE\ (1)}$	100	-	-		V_{CE}=1V, I_C=100mA
	$h_{FE\ (2)}$	100	-	-		V_{CE}=1V, I_C=10mA
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.25	V	I_C=100mA, I_B=10mA
Base to Emitter Voltage	$V_{BE(sat)}$	-	-	1.2	V	I_C=100mA, V_{CE}=1V
Transition Frequency	f_T	100	-	-	MHz	V_{CE}=2V, I_C=10mA, f=100MHz