Elektronische Bauelemente

M28S

1A , 40V

NPN Plastic Encapsulated Transistor

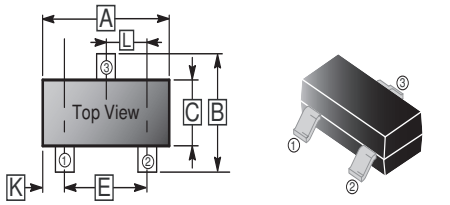
RoHS Compliant Product

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

FEATURES

- Excellent h_{FE} Linearity
- High DC Current Gain

SOT-23

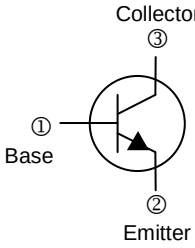


CLASSIFICATION OF h_{FE}

Product-Rank	M28S-B	M28S-C	M28S-D
Range	300~550	500~700	650~1000
Marking	28S		

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.04	G	0.09	0.18
B	2.10	2.55	H	0.45	0.60
C	1.20	1.40	J	0.08	0.177
D	0.89	1.15	K	0.6 REF.	
E	1.78	2.04	L	0.89	1.02
F	0.30	0.50			

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current - Continuous	I_C	1	A
Collector Power Dissipation	P_C	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	℃ / W
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	℃

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	40	-	-	V	I_C=0.1mA, I_E=0
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	20	-	-	V	I_C=1mA, I_B=0
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	I_E=0.1mA, I_C=0
Collector Cut-Off Current	I_{CBO}	-	-	0.1	μA	V_{CB}=35V, I_E=0
Collector Cut-Off Current	I_{CEO}	-	-	5	μA	V_{CE}=20V, I_B=0
Emitter Cut-Off Current	I_{EBO}	-	-	0.1	μA	V_{EB}=5V, I_C=0
DC Current Gain	$h_{FE(1)}$	290	-	-		V_{CE}=1V, I_C=1mA
	$h_{FE(2)}$	300	-	1000		V_{CE}=1V, I_C=100mA
	$h_{FE(3)}$	300	-	-		V_{CE}=1V, I_C=300mA
	$h_{FE(4)}$	300	-	-		V_{CE}=1V, I_C=500mA
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.55	V	I_C=600mA, I_B=20mA
Transition Frequency	f_T	100	-	-	MHz	V_{CE}=10V, I_E=50mA, f=1MHz
Collector output capacitance	C_{ob}	-	9	-	pF	V_{CB}=10V, I_E=0, f=1MHz