

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

FEATURES

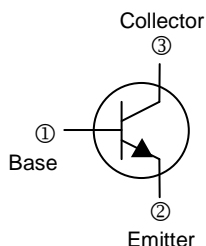
- Excellent h_{FE} Linearity
- High DC Current Gain

CLASSIFICATION OF h_{FE}

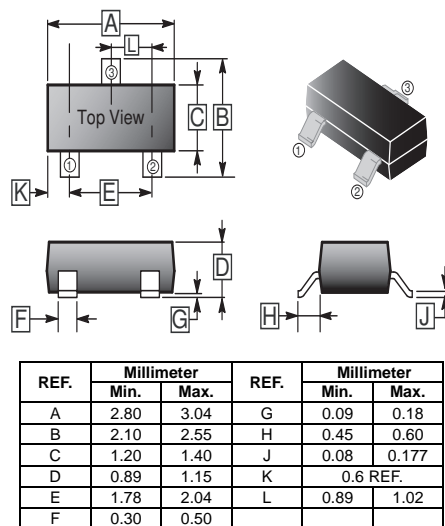
Product-Rank	M28S-B	M28S-C	M28S-D
Range	300~550	500~700	650~1000
Marking	28S		

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch



SOT-23



ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ 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	$^\circ\text{C} / \text{W}$
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 Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	40	-	-	V	$I_C=0.1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	20	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E=0.1\text{mA}, I_C=0$
Collector Cut-Off Current	I_{CBO}	-	-	0.1	μA	$V_{CB}=35\text{V}, I_E=0$
Collector Cut-Off Current	I_{CEO}	-	-	5	μA	$V_{CE}=20\text{V}, I_B=0$
Emitter Cut-Off Current	I_{EBO}	-	-	0.1	μA	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	$h_{FE(1)}$	290	-	-		$V_{CE}=1\text{V}, I_C=1\text{mA}$
	$h_{FE(2)}$	300	-	1000		$V_{CE}=1\text{V}, I_C=100\text{mA}$
	$h_{FE(3)}$	300	-	-		$V_{CE}=1\text{V}, I_C=300\text{mA}$
	$h_{FE(4)}$	300	-	-		$V_{CE}=1\text{V}, I_C=500\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.55	V	$I_C=600\text{mA}, I_B=20\text{mA}$
Transition Frequency	f_T	100	-	-	MHz	$V_{CE}=10\text{V}, I_E=50\text{mA}, f=1\text{MHz}$
Collector output capacitance	C_{ob}	-	9	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$