

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

FEATURES

- Low Frequency Power Amplifier Application
- Power Switching Applications

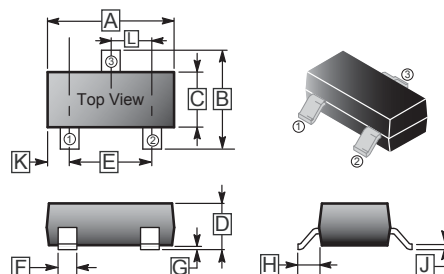
CLASSIFICATION OF h_{FE} (1)

Product-Rank	2SA1298-O	2SA1298-Y
Range	100~200	160~320
Marking	IO	IY

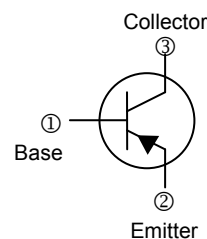
PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-23	3K	7' inch

SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.00	G	0.10 REF.	
B	2.25	2.55	H	0.55 REF.	
C	1.20	1.40	J	0.08	0.15
D	0.90	1.15	K	0.5 REF.	
E	1.80	2.00	L	0.95 TYP.	
F	0.30	0.50			



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

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	-35	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-800	mA
Collector Power Dissipation	P_C	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	$^\circ\text{C} / \text{W}$
Junction and Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	-35	-	-	V	$I_C = -1\text{mA}, I_E = 0$
Collector to Emitter Breakdown	$V_{(BR)CEO}$	-30	-	-	V	$I_C = -10\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -1\text{mA}, I_C = 0$
Collector Cut-off Current	I_{CBO}	-	-	-0.1	μA	$V_{CB} = -30\text{V}, I_E = 0$
Emitter Cut-off Current	I_{EBO}	-	-	-0.1	μA	$V_{EB} = -5\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	100	-	320		$V_{CE} = -1\text{V}, I_C = -100\text{mA}$
	$h_{FE(2)}$	40	-	-		$V_{CE} = -1\text{V}, I_C = -800\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-0.5	-	-0.8	V	$I_C = -500\text{mA}, I_B = -20\text{mA}$
Base to Emitter Saturation Voltage	V_{BE}	-	-	-0.5	V	$V_{CB} = -1\text{V}, I_C = -10\text{mA}$
Transition Frequency	f_T	-	120	-	MHz	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$
Collector Output Capacitance	C_{ob}	-	13	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$