Elektronische Bauelemente

2SC4177

0.1A , 60V

NPN Plastic-Encapsulate Transistor

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

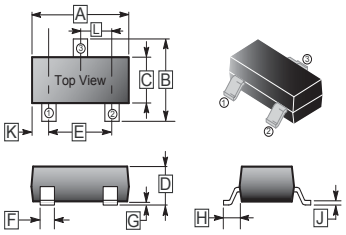
FEATURES

- High DC Current Gain.
- High Voltage.
- Complementary to 2SA1611

APPLICATIONS

- General Purpose Amplification

SOT-323



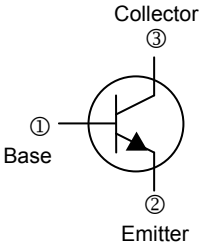
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650 TYP.	
F	0.20	0.40			

CLASSIFICATION OF h_{FE}

Product-Rank	2SC4177-L4	2SC4177-L5	2SC4177-L6	2SC4177-L7
Range	90~180	135~270	200~400	300~600
Marking	L4	L5	L6	L7

PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-323	3K	7' inch



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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA
Collector Power Dissipation	P_C	150	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	833	°C / W
Junction & Storage temperature	T_J, T_{STG}	150, -55~150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60	-	-	V	I_C=100μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	50	-	-	V	I_C=1mA, I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	I_E=100μA, I_C=0
Collector Cut-off Current	I_{CBO}	-	-	100	nA	V_{CB}=60V, I_E=0
Emitter Cut-off Current	I_{EBO}	-	-	100	nA	V_{EB}=5V, I_C=0
DC Current Gain[1]	h_{FE}	90	-	600		V_{CE}=6V, I_C=1mA
Collector-Base Saturation Voltage	$V_{CE(sat)}$	-	-	0.3	V	I_C=100mA, I_B=10mA
Base-emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1	V	I_C=100mA, I_B=10mA
Base-emitter Voltage	V_{BE}	0.55	-	0.65	V	V_{CE}=6V, I_C=1mA
Transition Frequency	f_T	-	250	-	MHz	V_{CE}=6V, I_C=10mA
Collector Output Capacitance	C_{ob}	-	3	-	pF	V_{CB}=6V, I_E=0, f=1MHz

Note:
1. Pulse test: pulse width≦350μs, duty cycle≦2.0%