

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

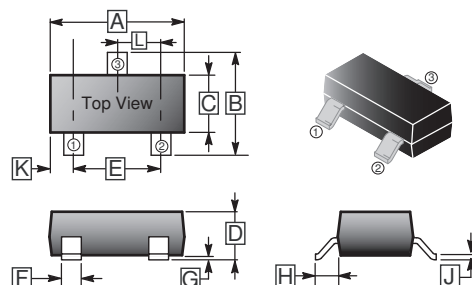
## FEATURES

- High current surface mount PNP silicon switching transistor for Load management in portable applications

## CLASSIFICATION OF $h_{FE}$

Product-Rank	2SB1116-L	2SB1116-K	2AB1116-U
Range	135~270	200~400	300~600

## SOT-23

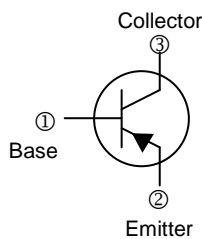


## MARKING

1116

## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6 REF.	
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			

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

Parameter	Symbol	Ratings	Unit
Collector - Base Voltage	$V_{CBO}$	-60	V
Collector - Emitter Voltage	$V_{CEO}$	-50	V
Emitter - Base Voltage	$V_{EBO}$	-6	V
Collector Current - Continuous	$I_C$	-1	A
Collector Power Dissipation	$P_C$	350	mW
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-Base Breakdown Voltage	$V_{(BR)CBO}$	-60	-	-	V	$I_C = -100\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6	-	-	V	$I_E = -100\mu\text{A}, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -60\text{V}, I_E = 0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	-0.1	$\mu\text{A}$	$V_{EB} = -6\text{V}, I_C = 0$
DC Current Gain	$h_{FE}$	135	-	600		$V_{CE} = -2\text{V}, I_C = -100\text{mA}$
		81	-	-		$V_{CE} = -2\text{V}, I_C = -1\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.3	V	$I_C = -1\text{A}, I_B = -50\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-1.2	V	$I_C = -1\text{A}, I_B = -50\text{mA}$
Base-emitter voltage	$V_{BE}$	-0.6	-	-0.7	V	$V_{CE} = -2\text{V}, I_C = -50\text{mA}$
Transition frequency	$f_T$	70	-	-	MHz	$V_{CE} = -2\text{V}, I_C = -100\text{mA}$
Collector Output Capacitance	$C_{ob}$	-	25	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$
Turn-on time	$t_{ON}$	-	0.07	-	$\mu\text{S}$	$V_{CC} = -10\text{V}, I_C = -100\text{mA}, I_{B1} = -I_{B2} = -0.01\text{A}, V_{BE(off)} = 2\sim 3\text{V}$
Storage time	$t_S$	-	0.7	-		
Fall time	$t_f$	-	0.07	-		