

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

FEATURES

- High Collector Current
- Low $V_{CE(sat)}$

MARKING

BW

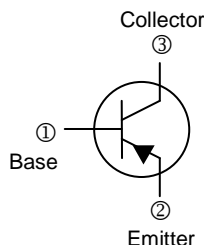
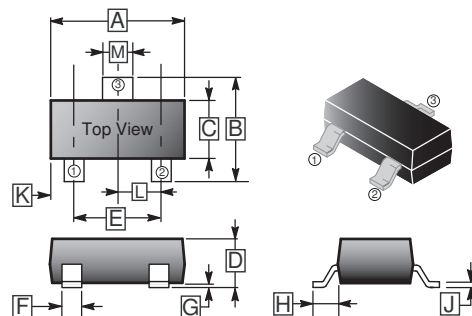
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-523	3K	7 inch

ORDER INFORMATION

Part Number	Type
2SA2018F-C	Lead (Pb)-free and Halogen-free

SOT-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.50	1.70	G	-	0.10
B	1.45	1.75	H	0.55 REF.	
C	0.70	0.90	J	0.08	0.20
D	0.60	0.90	K	-	
E	0.90	1.10	L	0.50 TYP.	
F	0.15	0.35	M	0.25	0.40

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-15	V
Collector-Emitter Voltage	V_{CEO}	-12	V
Emitter-Base Voltage	V_{EBO}	-6	V
Continuous Collector Current	I_C	-0.5	A
Collector Power Dissipation	P_C	0.15	W
Junction, Storage Temperature Range	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 condition
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-15	-	-	V	$I_C = -10\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-12	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6	-	-	V	$I_E = -10\mu\text{A}, I_C = 0$
Collector Cut-Off Current	I_{CBO}	-	-	-0.1	μA	$V_{CB} = -15\text{V}, I_E = 0$
Emitter Cut-Off Current	I_{EBO}	-	-	-0.1	μA	$V_{EB} = -6\text{V}, I_C = 0$
DC Current Gain	h_{FE}	270	-	680		$V_{CE} = -2\text{V}, I_C = -10\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.25	V	$I_C = -200\text{mA}, I_B = -10\text{mA}$
Transition Frequency	f_T	-	260	-	MHz	$V_{CE} = -2\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$
Collector Output Capacitance	C_{ob}	-	6.5	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$

CHARACTERISTIC CURVE

