

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

FEATURES

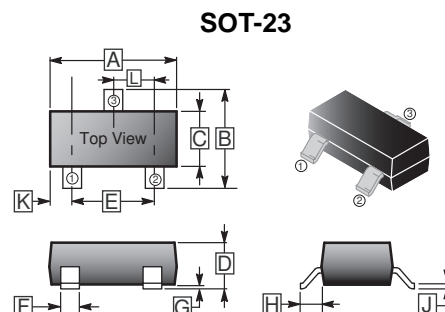
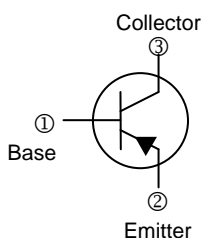
- High voltage and high current
- Excellent h_{FE} linearity
- Less noise

CLASSIFICATION OF h_{FE}

Product-Rank	2SA1015K-L	2SA1015K-H
Range	130~200	200~400
Marking	BA	BA

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	0.01	0.18
B	2.10	2.95	H	0.5 Typ.	
C	1.20	1.7	J	0.08	0.20
D	0.89	1.3	K	0.6 REF.	
E	1.70	2.3	L	0.95 BSC.	
F	0.30	0.50			

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-0.15	A
Total Power Dissipation	P_D	200	mW
Thermal Resistance from 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 specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector-Base Breakdown Voltage	BV_{CBO}	-50	-	-	V	$I_C = -0.1\text{mA}, I_E = 0$
Collector-Emitter Breakdown Voltage	BV_{CEO}	-50	-	-	V	$I_C = -0.1\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	BV_{EBO}	-5	-	-	V	$I_E = -0.1\text{mA}, I_C = 0$
Collector Cut-Off Current	I_{CBO}	-	-	-0.1	μA	$V_{CB} = -50\text{V}, I_E = 0$
Collector Cut-Off Current	I_{CEO}	-	-	-0.1	μA	$V_{CE} = -50\text{V}, I_B = 0$
Emitter Cut-Off Current	I_{EBO}	-	-	-0.1	μA	$V_{EB} = -5\text{V}, I_C = 0$
DC Current Gain	h_{FE}	130	-	400		$V_{CE} = -6\text{V}, I_C = -2\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.3	V	$I_C = -100\text{mA}, I_B = -10\text{mA}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-1.1	V	$I_C = -100\text{mA}, I_B = -10\text{mA}$
DC Current Gain	h_{FE}	130	-	400		$V_{CE} = -6\text{V}, I_C = -2\text{mA}$
Transition Frequency	f_T	-	80	-	MHz	$V_{CE} = -10\text{V}, I_C = -1\text{mA}, f = 30\text{MHz}$

CHARACTERISTICS CURVES

