

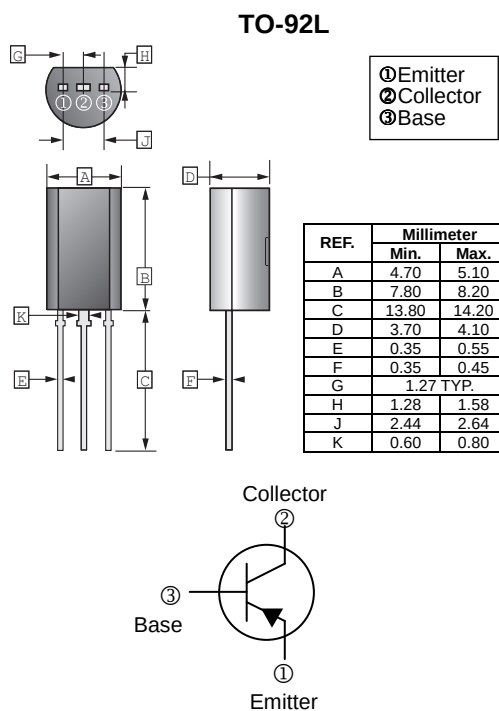
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURE

- High Voltage : $V_{CEO} = -160V$
- Large Continuous Collector Current Capability
- Complementary to 2SC2383

CLASSIFICATION OF h_{FE}

Product-Rank	2SA1013-R	2SA1013-O	2SA1013-Y
Range	60~120	100~200	160~320



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

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	-160	V
Collector to Emitter Voltage	V_{CEO}	-160	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current - Continuous	I_C	-1	A
Collector Power Dissipation	P_C	0.9	W
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-160	-	-	V	$I_C = -100\mu A, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-160	-	-	V	$I_C = -1mA, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6	-	-	V	$I_E = -10\mu A, I_C = 0$
Collector Cut-off Current	I_{CBO}	-	-	-1	μA	$V_{CB} = -150V, I_E = 0$
Emitter Cut-off Current	I_{EBO}	-	-	-1	μA	$V_{EB} = -6V, I_C = 0$
DC Current Gain	h_{FE}	60	-	320		$V_{CE} = -5V, I_C = -200mA$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-1.5	V	$I_C = -500mA, I_B = -50mA$
Base-Emitter Voltage	V_{BE}	-	-	-0.75	V	$V_{CE} = -5V, I_C = -5mA$
Transition Frequency	f_T	15	-	-	MHz	$V_{CE} = -5V, I_C = -200mA$
Collector Output Capacitance	C_{Ob}	-	-	35	pF	$V_{CB} = -10V, I_E = 0, f = 1 MHz$

CHARACTERISTIC CURVES

