

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

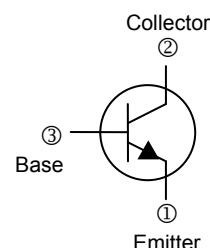
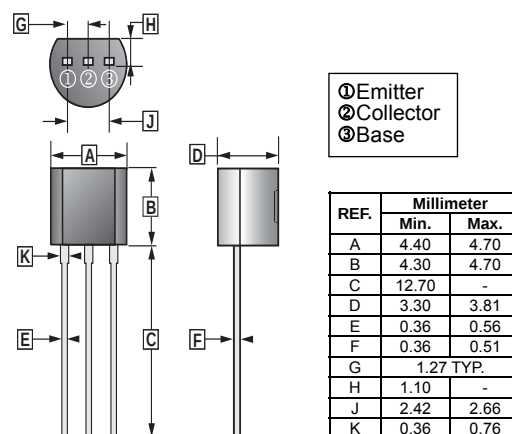
FEATURES

- High Breakdown Voltage
- Low Collector Output Capacitance
- Ideal for Chroma Circuit

CLASSIFICATION OF h_{FE}

Product-Rank	2SC3415-M	2SC3415-N	2SC3415-P
Range	39~82	56~120	82~180

TO-92



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	300	V
Collector to Emitter Voltage	V_{CEO}	300	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	0.1	A
Collector Power Dissipation	P_C	0.5	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	$^\circ\text{C} / \text{W}$
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 Condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	300	-	-	V	$I_C=50\mu\text{A}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	300	-	-	V	$I_C=100\mu\text{A}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=50\mu\text{A}, I_C=0$
Collector Cut – Off Current	I_{CBO}	-	-	0.5	μA	$V_{CB}=200\text{V}, I_E=0$
Emitter Cut – Off Current	I_{EBO}	-	-	0.5	μA	$V_{EB}=4\text{V}, I_C=0$
DC Current Gain	h_{FE}	39	-	180		$V_{CE}=10\text{V}, I_C=10\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	2	V	$I_C=50\text{mA}, I_B=5\text{mA}$
Base to Emitter voltage	$V_{BE(sat)}$	-	-	1.2	V	$I_C=50\text{mA}, I_B=5\text{mA}$
Collector output capacitance	C_{ob}	-	3	-	pF	$V_{CB}=30\text{V}, I_E=0, f=1\text{MHz}$
Transition Frequency	f_T	-	50	-	MHz	$V_{CE}=30\text{V}, I_C=10\text{mA}$