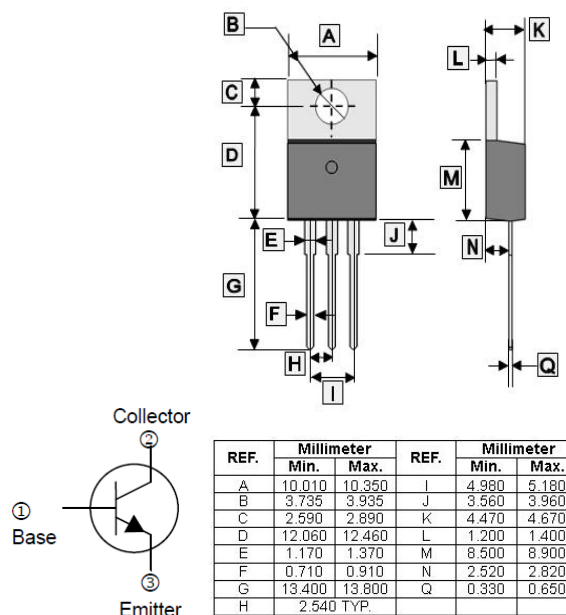


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Power switching applications

TO-220J



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	700	V
Collector to Emitter Voltage	V_{CEO}	400	V
Emitter to Base Voltage	V_{EBO}	9	V
Collector Current - Continuous	I_C	4	A
Collector Power Dissipation	P_C	2	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	$V_{(BR)CBO}$	700	-	-	V	$I_C=1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	400	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	9	-	-	V	$I_E=1\text{mA}, I_C=0$
Collector Cut – Off Current	I_{CBO}	-	-	1	mA	$V_{CB}=700\text{V}, I_E=0$
	I_{CEO}	-	-	0.1		$V_{CE}=400\text{V}, I_B=0$
Emitter Cut – Off Current	I_{EBO}	-	-	0.05	mA	$V_{EB}=7\text{V}, I_C=0$
DC Current Gain	h_{FE}	20	-	30		$V_{CE}=5\text{V}, I_C=1\text{A}$
		5	-	-		$V_{CE}=5\text{V}, I_C=10\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)1}$	-	-	0.3	V	$I_C=1\text{A}, I_B=0.2\text{A}$
	$V_{CE(sat)2}$	-	-	0.8	V	$I_C=4\text{A}, I_B=1\text{A}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1.6	V	$I_C=2\text{A}, I_B=0.5\text{A}$
Transition Frequency	f_T	5	-	-	MHz	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=1\text{MHz}$
Fall time	t_F	-	-	0.6	μs	$I_{B1}=-I_{B2}=0.4\text{A}, I_C=2\text{A}, V_{CC}=120\text{V}$
Storage time	t_S	1.8	-	6.6	μs	$I_C=0.25\text{A}$