

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

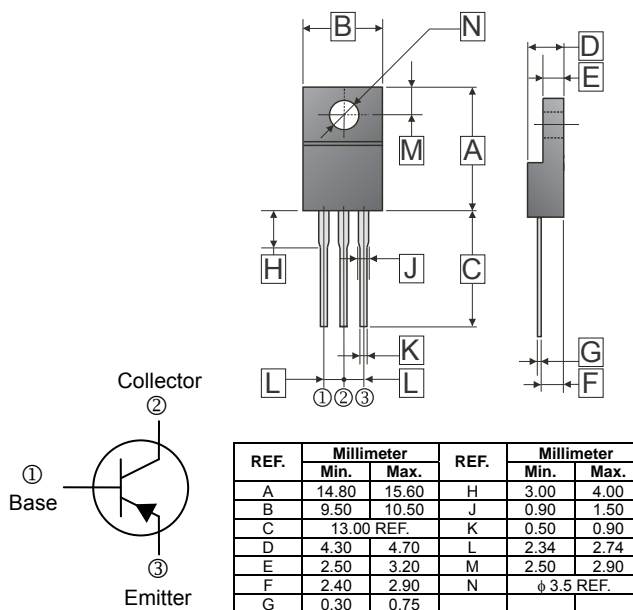
## FEATURES

- Power switching applications

## CLASSIFICATION OF $h_{FE}$

Product-Rank	2SB834-O	2SB834-Y
Range	60~120	100~200

## ITO-220J



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CB0}$	-60	V
Collector to Emitter Voltage	$V_{CEO}$	-60	V
Emitter to Base Voltage	$V_{EBO}$	-7	V
Collector Current - Continuous	$I_C$	-3	A
Collector Power Dissipation	$P_C$	1.5	W
Thermal resistance, junction to case	$R_{\theta JC}$	83.3	$^\circ\text{C} / \text{W}$
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	$V_{(BR)CB0}$	-60	-	-	V	$I_C = -1\text{mA}, I_E = 0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60	-	-	V	$I_C = -50\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-7	-	-	V	$I_E = -1\text{mA}, I_C = 0$
Collector Cut - Off Current	$I_{CB0}$	-	-	-100	$\mu\text{A}$	$V_{CB} = -60\text{V}, I_E = 0$
Emitter Cut - Off Current	$I_{EBO}$	-	-	-100	$\mu\text{A}$	$V_{EB} = -7\text{V}, I_C = 0$
DC Current Gain	$h_{FE}$	60	-	200		$V_{CE} = -5\text{V}, I_C = -500\text{mA}$
		20	-	-		$V_{CE} = -5\text{V}, I_C = -3\text{A}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-1	V	$I_C = -3\text{A}, I_B = -0.3\text{A}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-1	V	$V_{CE} = -5\text{V}, I_C = -0.5\text{A}$
Transition Frequency	$f_T$	5	-	-	MHz	$V_{CE} = -5\text{V}, I_C = -500\text{mA}, f = 1\text{MHz}$
Turn-on Time	$t_{ON}$	-	0.7	-	$\mu\text{s}$	$I_{B1} = -I_{B2} = -0.2\text{A}, I_C = 2\text{A}, V_{CC} = 30\text{V}$
Storage Time	$t_{STG}$	-	2	-		
Turn-off Time	$t_{OFF}$	-	0.9	-		

Note:

- Pulse test.

**Typical Characteristics**

