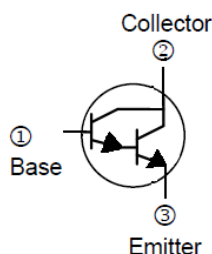


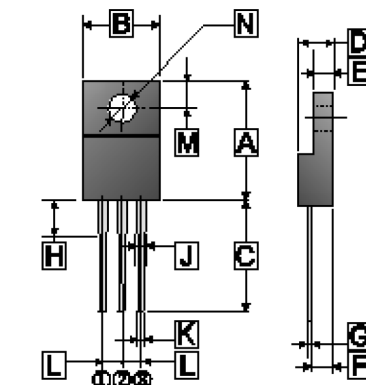
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Darling connection provides high DC current gain (h_{FE})
- Large collector power dissipation
- Low frequency and power amplifier



ITO-220J



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.5	15.5	H	3.8 TYP.	
B	9.5	10.5	J	1.30 REF.	
C	13.20 REF.		K	0.3	0.9
D	4.24	4.84	L	2.54 REF.	
E	2.52	3.20	M	2.70 REF.	
F	2.50	2.90	N	φ 3.5 REF.	
G	0.47	0.75			

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	3	A
Collector Power Dissipation	P_C	2	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	62.5	$^\circ\text{C/W}$
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 to Base Breakdown Voltage	$V_{(BR)CBO}$	80	-	-	V	$I_C=0.05\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	60	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E=0.05\text{mA}, I_C=0$
Collector Cut-Off Current	I_{CBO}	-	-	100	μA	$V_{CB}=80\text{V}, I_E=0$
Emitter Cut-Off Current	I_{EBO}	-	-	100	μA	$V_{EB}=6\text{V}, I_C=0$
DC Current Gain ¹	h_{FE}	600	-	1200		$V_{CE}=4\text{V}, I_C=0.5\text{A}$
Collector to Emitter Saturation Voltage ¹	$V_{CE(sat)}$	-	-	0.8	V	$I_C=2\text{A}, I_B=50\text{mA}$
Base to Emitter Voltage	$V_{BE(sat)}$	-	-	1.5	V	$I_C=2\text{A}, I_B=50\text{mA}$
Transition Frequency	f_T	-	40	-	MHz	$V_{CE}=5\text{V}, I_C=0.2\text{A}, f=10\text{MHz}$
Collector Output Capacitance	C_{ob}	-	55	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$

Notes:

1. Pulse test : Pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.

CHARACTERISTIC CURVES

