

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

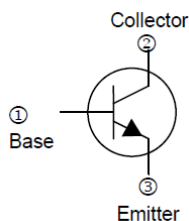
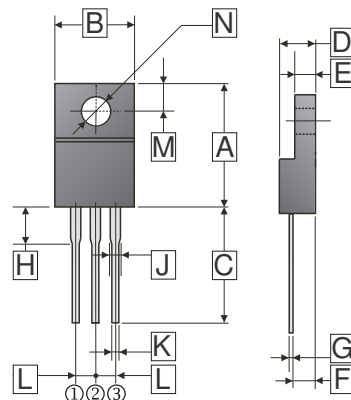
FEATURES

- Power switching applications
- Low Collector to Emitter Saturation Voltage $V_{CE(sat)}$
- Satisfactory Linearity of Forward Current Transfer Ratio h_{FE}
- Large Collector Current

CLASSIFICATION OF h_{FE}

Product-Rank	2SD1271A-R	2SD1271A-Q	2SD1271A-P
Range	60~120	90~180	130~260

ITO-220J



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.80	15.60	H	3.00	4.00
B	9.50	10.50	J	0.90	1.50
C	13.00	REF.	K	0.50	0.90
D	4.30	4.70	L	2.34	2.74
E	2.50	3.20	M	2.50	2.90
F	2.40	2.90	N	φ 3.5	REF.
G	0.30	0.75			

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	150	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter to Base Voltage	V_{EBO}	7	V
Collector Current - Continuous	I_C	7	A
Collector Power Dissipation	P_C	2	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	62.5	$^\circ\text{C} / \text{W}$
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	$V_{(BR)CBO}$	150	-	-	V	$I_C=0.1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	100	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	7	-	-	V	$I_E=0.1\text{mA}, I_C=0$
Collector Cut – Off Current	I_{CBO}	-	-	10	μA	$V_{CB}=100\text{V}, I_E=0$
Emitter Cut – Off Current	I_{EBO}	-	-	50	μA	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	h_{FE}	45	-	-		$V_{CE}=2\text{V}, I_C=0.1\text{A}$
		60	-	260		$V_{CE}=2\text{V}, I_C=3\text{A}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	0.5	V	$I_C=5\text{A}, I_B=250\text{mA}$
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1.5	V	$I_C=5\text{A}, I_B=250\text{mA}$
Transition Frequency	f_T	-	30	-	MHz	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=10\text{MHz}$

RATINGS AND CHARACTERISTIC CURVES

