

# isc Silicon PNP Power Transistor

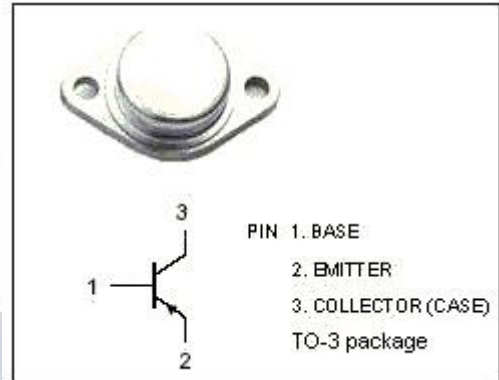
# 2N3171

### DESCRIPTION

- Excellent Safe Operating Area
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = -0.75V(\text{Max}) @ I_c = -1A$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- All semelab hermetically sealed products, can be processed in accordance with the requirements of BS, CECC, and JAN, JANTX and JANTXV and JAN specifications.

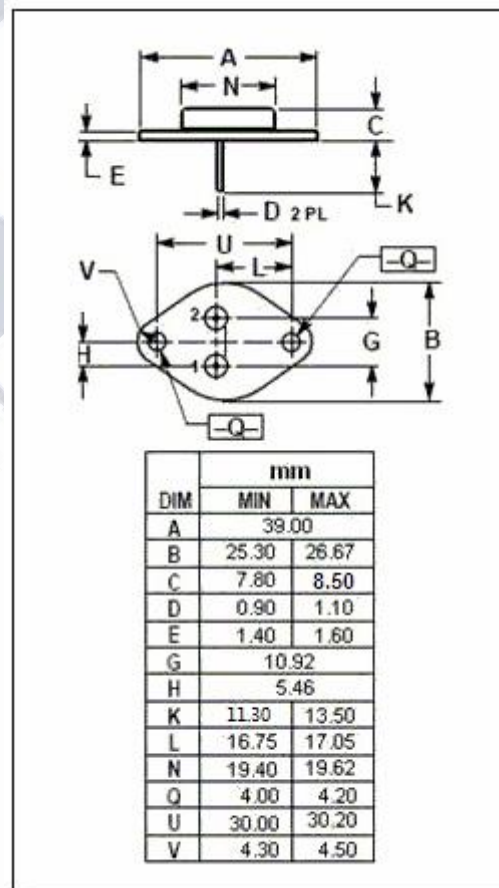


### ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-10	V
$I_c$	Collector Current-Continuous	-3	A
$P_c$	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	75	W
$T_j, T_{stg}$	Operating and Storage Junction Temperature Range	-65~+150	$^\circ\text{C}$

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.67	$^\circ\text{C/W}$



**isc Silicon PNP Power Transistors****2N3171****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}; I_B = -0.14\text{A}$		-0.75	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1\text{A}; I_B = -0.14\text{A}$		-1.8	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = -40\text{V}; I_B = 0$		-0.1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -10\text{V}; I_C = 0$		-0.1	mA
$h_{FE}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -3\text{V}$	12	36	