



## MJE340

### Silicon NPN Power Transistor



#### DESCRIPTION

- Collector–Emitter Sustaining Voltage–  
:  $V_{CEO(SUS)} = 300\text{ V(Min)}$
- DC Current Gain–  
:  $h_{FE} = 30(\text{Min}) @ I_C = 50\text{mA}$
- Low Collector Saturation Voltage–  
:  $V_{CE(sat)} = 1.0\text{V(Max.)} @ I_C = 50\text{mA}$
- Complement to the PNP MJE350
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### APPLICATIONS

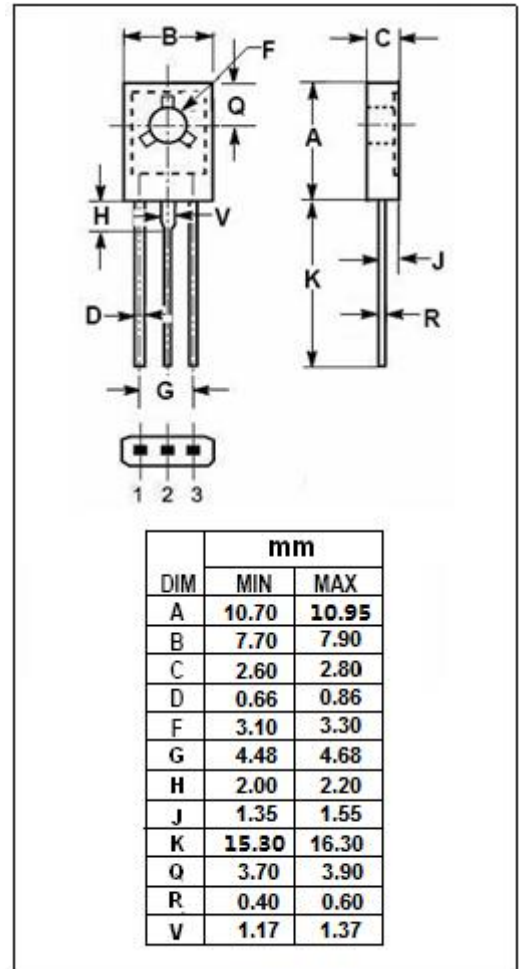
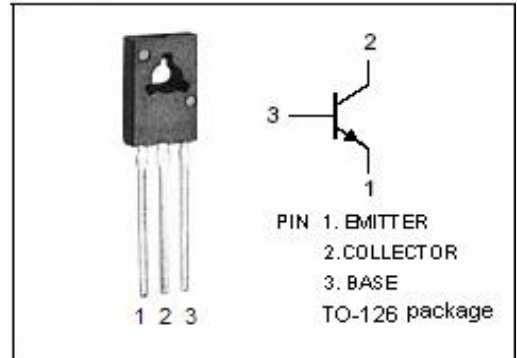
- Designed for high voltage and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	300	V
$V_{CEO}$	Collector-Emitter Voltage	300	V
$V_{EBO}$	Emitter-Base Voltage	3	V
$I_C$	Collector Current-Continuous	0.5	A
$P_C$	Collector Power Dissipation $T_C=25^\circ\text{C}$	20	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	6.25	$^\circ\text{C/W}$



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## ELECTRICAL CHARACTERISTICS

$T_c = 25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 1.0\text{mA}; I_B = 0$	300		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1.0\text{mA}; I_E = 0$	300		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1.0\text{mA}; I_C = 0$	3		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 50\text{mA}; I_B = 5\text{mA}$		1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = 300\text{V}; I_E = 0$		0.1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 3\text{V}; I_C = 0$		0.1	mA
$h_{FE}$	DC Current Gain	$I_C = 50\text{mA}; V_{CE} = 10\text{V}$	30	240	