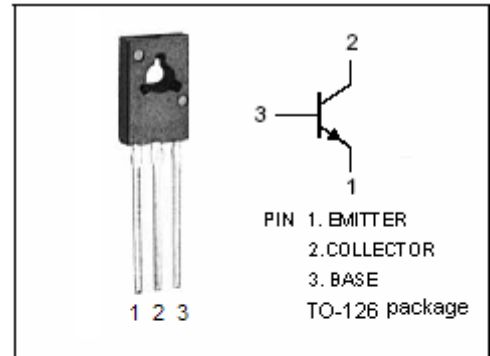


isc Silicon NPN Power Transistor

MJE341

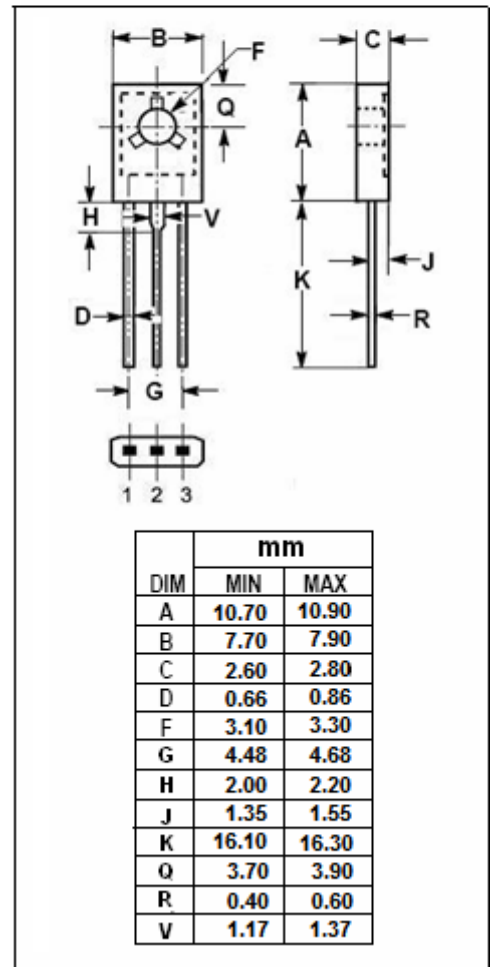
APPLICATIONS

- Useful for medium voltage applications requiring high  $f_T$  such as converters and extended range amplifiers.



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	175	V
$V_{CEO}$	Collector-Emitter Voltage	150	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	$I_C = 1.0\text{mA}; I_B = 0$	150		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 150\text{mA}; I_B = 15\text{mA}$		2.3	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 50\text{mA}; V_{CE} = 10\text{V}$		1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = 175\text{V}; I_E = 0$		0.3	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CB} = 150\text{V}; I_E = 0$		1.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 3\text{V}; I_C = 0$		0.1	mA
$h_{FE-1}$	DC Current Gain	$I_C = 10\text{mA}; V_{CE} = 10\text{V}$	20		
$h_{FE-2}$	DC Current Gain	$I_C = 50\text{mA}; V_{CE} = 10\text{V}$	25	200	
$h_{FE-3}$	DC Current Gain	$I_C = 150\text{mA}; V_{CE} = 10\text{V}$	20		
$C_{OB}$	Output Capacitance	$I_E = 0, V_{CB} = 20\text{V}; f = 0.1\text{MHz}$		15	pF
$f_T$	Current Gain-Bandwidth Product	$I_C = 50\text{mA}; V_{CE} = 25\text{V}; f_{test} = 1\text{MHz}$	15		MHz