

SPTECH Silicon NPN Power Transistor

MJ15026

DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-
: $h_{FE} = 25(\text{Min.}) @ I_C = 5A$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 5A$
- Complement to the PNP MJ15027

APPLICATIONS

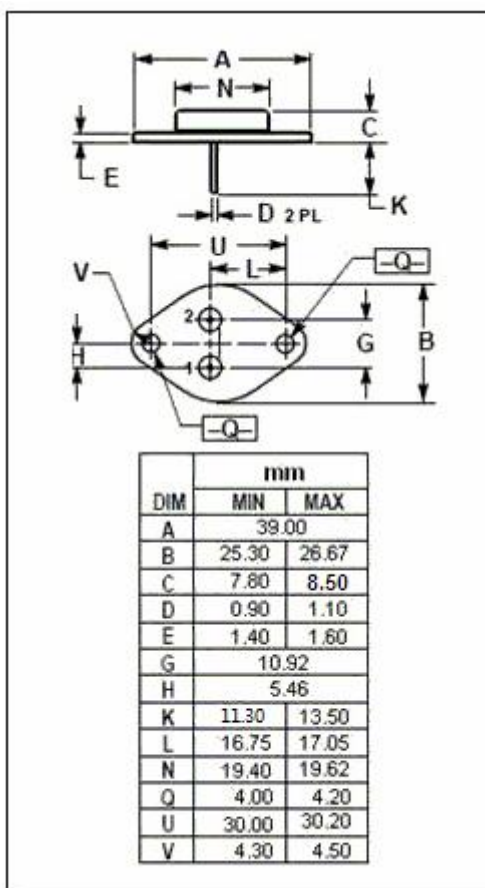
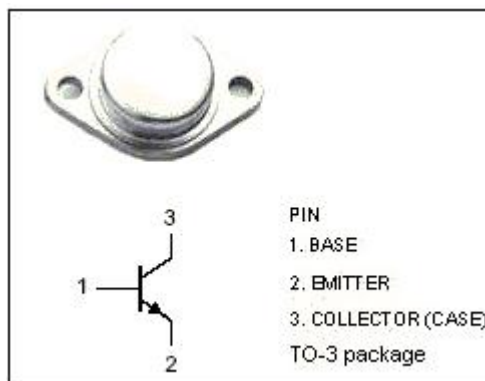
- Designed for high power audio, disk head positioners , and other linear applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEO}	Collector-Emitter Voltage	200	V
V_{CBO}	Collector-Base Voltage	200	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	16	A
I_{CM}	Collector Current-Peak	32	A
I_B	Base Current-Continuous	7	A
P_D	Total Power Dissipation@ $T_C = 25^\circ\text{C}$	250	W
T_j	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.7	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA ; I _B = 0	200		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		1.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 16A; I _B = 4A		3.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		2.0	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 120V; I _B = 0		1.0	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 200V; I _E =0		1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		1.0	mA
h _{FE-1}	DC Current Gain	I _C = 5A ; V _{CE} = 5V	25	150	
h _{FE-2}	DC Current Gain	I _C = 16A ; V _{CE} = 5V	6		
f _T	Current-Gain—Bandwidth Product	I _C = 1A ; V _{CE} = 10V; f _{test} = 1.0MHz	15		MHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f _{test} = 1.0MHz	300		pF