

SPTECH Silicon NPN Power Transistor

2N6327

DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 80V(\text{Min})$
- High Current Capability
- Wide Area of Safe Operation
- Complement to Type 2N6330

APPLICATIONS

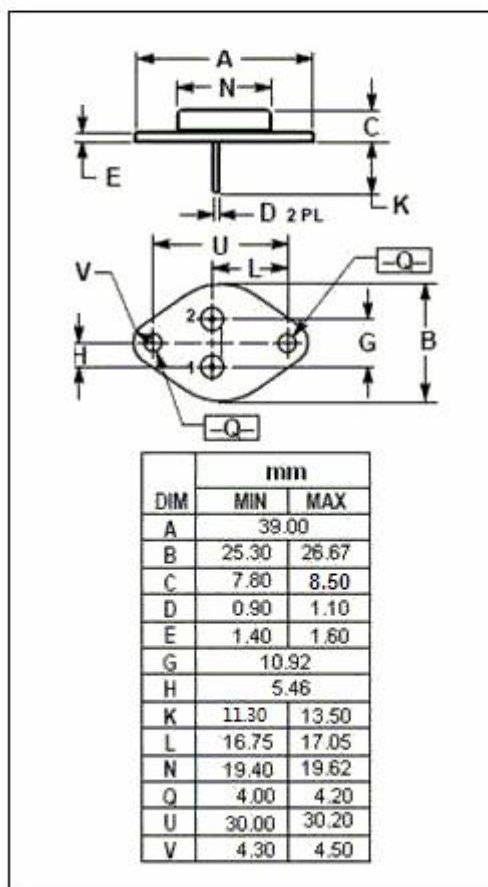
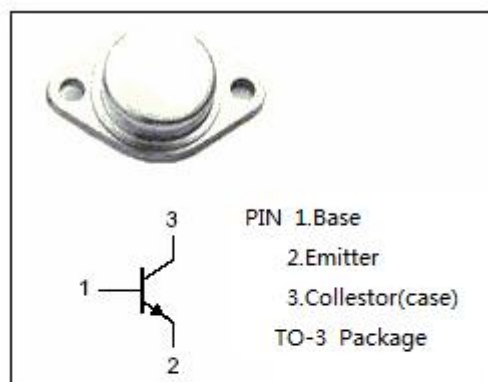
- Designed for power amplifier and high-speed switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base voltage	5	V
I_C	Collector Current-Continuous	30	A
I_{CM}	Collector Current-Peak	40	A
I_B	Base Current-Continuous	10	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	200	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	0.7	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=30\text{mA}$; $I_B=0$	80			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=15\text{A}$; $I_B=2\text{A}$			1.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=30\text{A}$; $I_B=7.5\text{A}$			3.0	V
$V_{BE(on)-1}$	Base-Emitter On Voltage	$I_C=15\text{A}$; $V_{CE}=4\text{V}$			2.0	V
$V_{BE(on)-2}$	Base-Emitter On Voltage	$I_C=30\text{A}$; $V_{CE}=4\text{V}$			4.0	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=40\text{V}$; $I_B=0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}$; $I_C=0$			0.5	mA
h_{FE-1}	DC Current Gain	$I_C=5\text{A}$; $V_{CE}=4\text{V}$	25			
h_{FE-2}	DC Current Gain	$I_C=15\text{A}$; $V_{CE}=4\text{V}$	12			
h_{FE-3}	DC Current Gain	$I_C=30\text{A}$; $V_{CE}=4\text{V}$	6		30	

Switching Times

t_{on}	Turn-On Time	$I_C=15\text{A}$; $I_{B1}=-I_{B2}=2\text{A}$; $V_{BE(off)}=-4\text{V}$, $R_L=2\Omega$		0.6		μs
t_{off}	Turn-Off Time			0.9		μs