

isc Silicon PNP Power Transistors

BD365

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -50V(\text{Min})$
- Excellent Safe Operating Area
- Complement to Type BD364
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

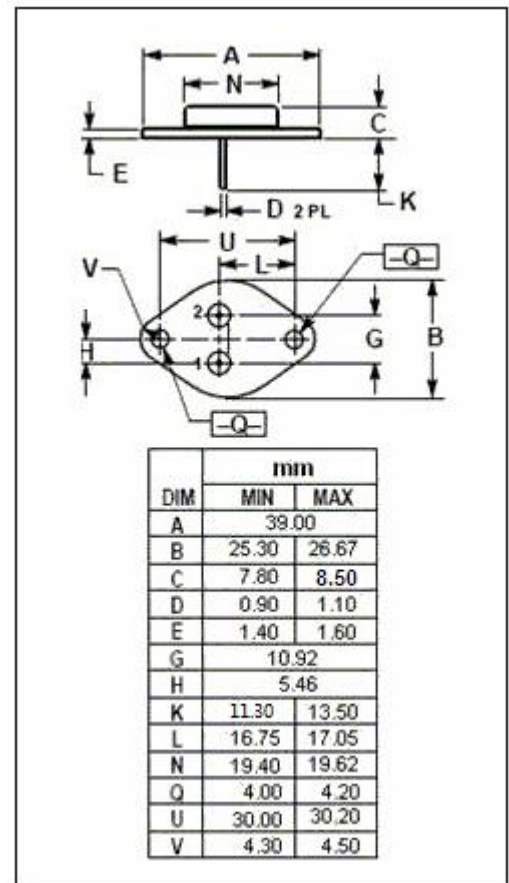
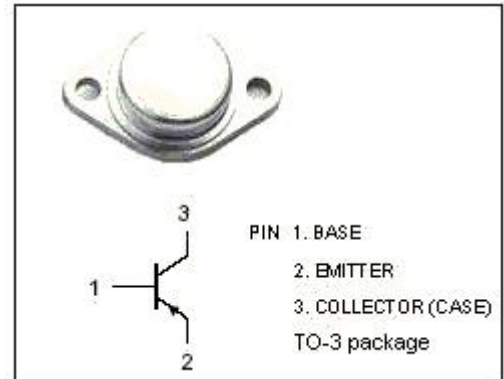
- Designed for linear amplifiers, series pass regulators, and inductive switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-25	A
I_B	Base Current-Continuous	-5.0	A
P_C	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	200	W
T_J	Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.875	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS
 $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}$; $I_B = 0$	-50		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{A}$; $I_B = -1\text{A}$		-1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -20\text{A}$; $I_B = -2\text{A}$		-1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -10\text{A}$; $I_B = -1\text{A}$		-1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -20\text{A}$; $I_B = -2\text{A}$		-2.0	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = -50\text{V}$; $I_B = 0$		-0.5	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = -50\text{V}$; $I_E = 0$		-0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$		-0.1	mA
h_{FE-1}	DC Current Gain	$I_C = -1\text{A}$; $V_{CE} = -5\text{V}$	40		
h_{FE-2}	DC Current Gain	$I_C = -15\text{A}$; $V_{CE} = -5\text{V}$	25	100	
h_{FE-3}	DC Current Gain	$I_C = -25\text{A}$; $V_{CE} = -5\text{V}$	5		
f_T	Current-Gain—Bandwidth Product	$I_C = -1\text{A}$; $V_{CE} = -10\text{V}$; $f_{test} = 1.0\text{MHz}$	4		MHz

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