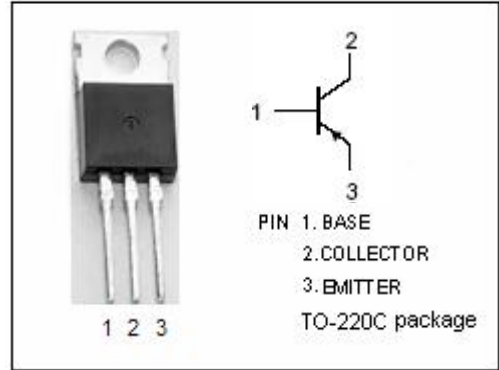


isc Silicon PNP Power Transistor
BD538
DESCRIPTION

- DC Current Gain -
: $h_{FE} = 40 @ I_C = -0.5A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -80V(\text{Min})$
- Complement to Type BD537

APPLICATIONS

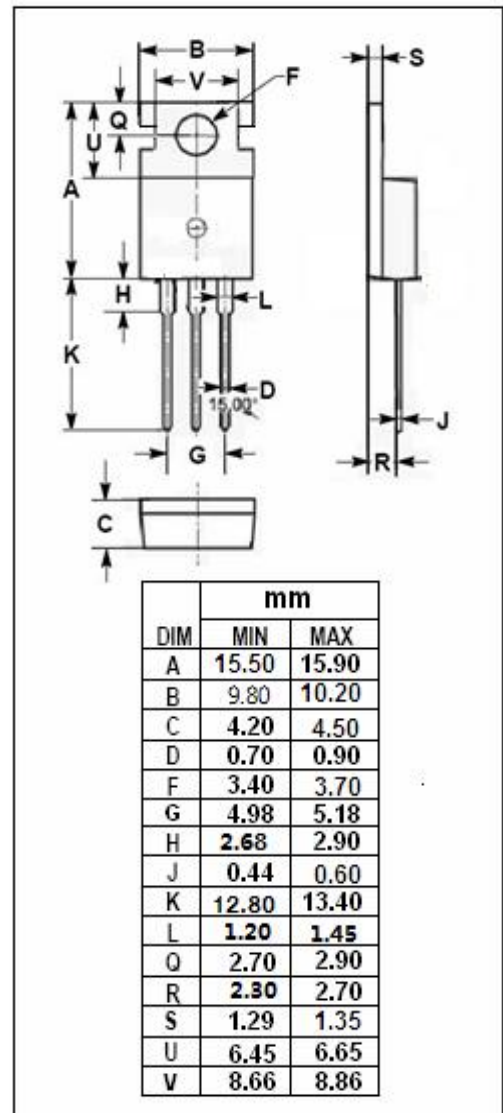
- Designed for use in medium power linear and switching applications.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-80	V
V_{CES}	Collector-Emitter Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-8	A
I_B	Base Current	-1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	50	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	2.5	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	70	$^\circ\text{C/W}$



isc Silicon PNP Power Transistor
BD538
ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -30mA; I _B = 0	-80			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -2A; I _B = -0.2A			-0.8	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -6A; I _B = -0.6A		-0.8		V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -2A; V _{CE} = -2V			-1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -80V; I _E = 0			-0.1	mA
I _{CES}	Collector Cutoff Current	V _{CE} = -80V; V _{BE} = 0			-0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-1.0	mA
h _{FE-1}	DC Current Gain	I _C = -10mA; V _{CE} = -5V	15			
h _{FE-2}	DC Current Gain	I _C = -0.5A; V _{CE} = -2V	40			
h _{FE-3}	DC Current Gain	I _C = -2A; V _{CE} = -2V	15			
f _T	Current-Gain—Bandwidth Product	I _C = -0.5A; V _{CE} = -1V	3.0	12		MHz

NOTICE:

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