

isc Silicon NPN Power Transistor

2SD535

DESCRIPTION

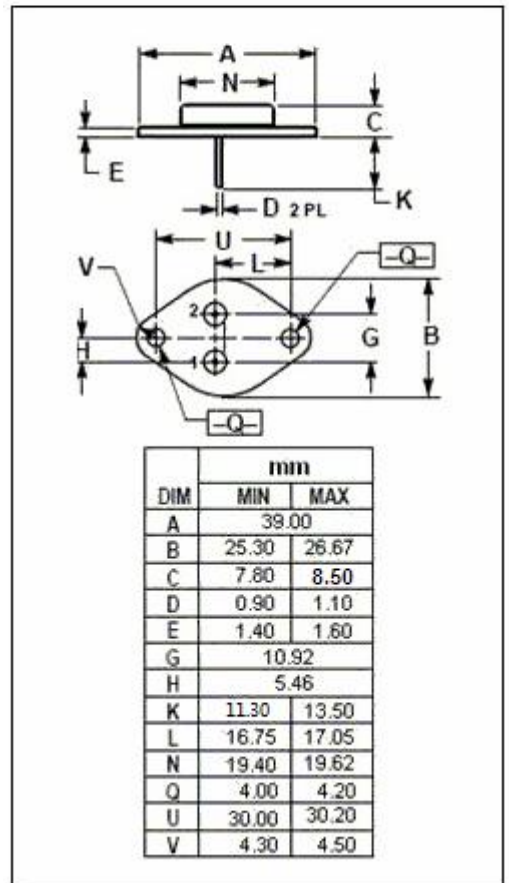
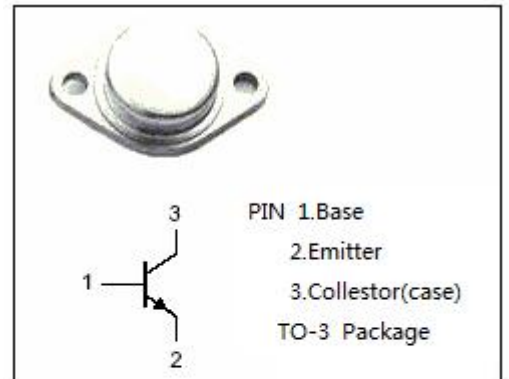
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 120V(\text{Min})$
- Excellent Safe Operating Area
- High Current Capability
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high speed, high current, high power applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	12	A
I_{CM}	Collector Current-Peak	15	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	150	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SD535****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}; I_B=0$	120			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=6\text{A}; I_B=0.6\text{A}$			0.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=1\text{A}$			1.2	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C=6\text{A}; I_B=0.6\text{A}$			1.0	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=1\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=120\text{V}; I_E=0$			0.1	mA
I_{EBO}	Emitter Cutoff current	$V_{EB}=9\text{V}; I_C=0$			0.1	mA
h_{FE-1}	DC Current Gain	$I_C=2\text{A}; V_{CE}=6\text{V}$	60		200	
h_{FE-2}	DC Current Gain	$I_C=10\text{A}; V_{CE}=6\text{V}$	30			

Switching Times;

t_{on}	Turn-on Time	$I_C=10\text{A}; I_{B1}=-I_{B2}=1.0\text{A};$			1.5	μs
t_s	Storage Time				4.5	μs
t_f	Fall Time				2.0	μs

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