

isc Silicon NPN Power Transistor

2N5665

DESCRIPTION

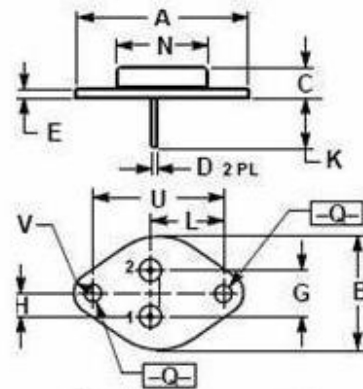
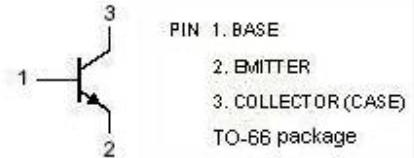
- Collector-Emitter Breakdown Voltage-
: $V_{CEO}=300V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device
Performance and reliable operation

APPLICATIONS

- Power amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	5	A
P_D	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	2.5	W
T_J	Junction Temperature	-65~200	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~200	$^{\circ}\text{C}$



DIM	mm	
	MIN	MAX
A	31.40	31.80
B	17.30	17.90
C	6.70	7.10
D	0.70	0.90
E	1.40	1.80
G	5.08	
H	2.54	
K	9.80	10.50
L	14.70	14.90
N	12.40	12.70
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage	$I_B=10\mu\text{A}$	6			V
I_{CBO}	Collector-Base Cutoff Current	$V_{CB}=300\text{V}$			0.1	μA
I_{CEO}	Collector-Emitter Cutoff Current	$V_{CE}=300\text{V}$			0.2	μA
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.6\text{A}$			0.4	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=1\text{A}$			1	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.6\text{A}$			1.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=1\text{A}$			1.5	V
h_{FE-1}	DC Current Gain	$I_C=500\text{mA}; V_{CE}=2\text{V}$	25			
h_{FE-2}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	25		75	
h_{FE-3}	DC Current Gain	$I_C=3\text{A}; V_{CE}=5\text{V}$	10			
h_{FE-4}	DC Current Gain	$I_C=5\text{A}; V_{CE}=5\text{V}$	5			

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