

isc Silicon NPN Power Transistor

2SC2658

DESCRIPTION

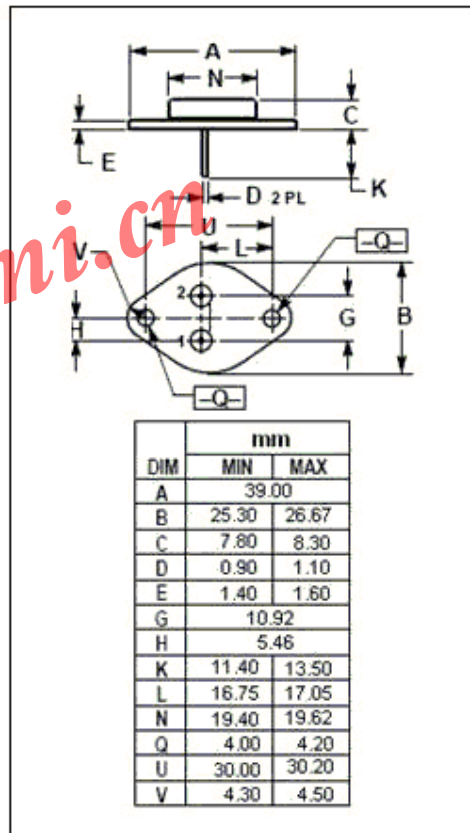
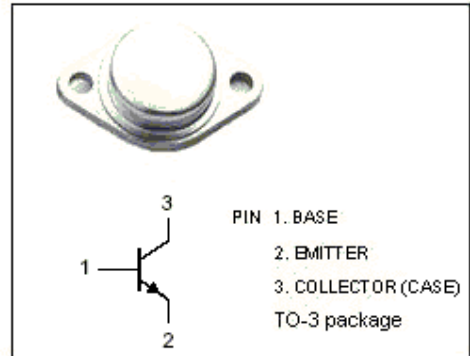
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 500V$ (Min)
- High Switching Speed

APPLICATIONS

- Designed for high speed power switching applications.

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

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	800	V
V_{CEO}	Collector-Emitter Voltage	500	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	90	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$



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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	$I_C = 0.2\text{A}$; $L = 25\text{mH}$	500			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 3\text{A}$; $I_B = 0.6\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 3\text{A}$; $I_B = 0.6\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 800\text{V}$; $I_E = 0$			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	$I_C = 0.1\text{A}$; $V_{CE} = 5\text{V}$	15			
h_{FE-2}	DC Current Gain	$I_C = 3\text{A}$; $V_{CE} = 5\text{V}$		8		
f_T	Current-Gain—Bandwidth Product	$I_C = 0.5\text{A}$; $V_{CE} = 10\text{V}$		3		MHz

Switching Times

t_{on}	Turn-On Time	$I_C = 3\text{A}$; $I_{B1} = -I_{B2} = 0.6\text{A}$			1	μs
t_{stg}	Storage Time				3	μs
t_f	Fall Time				1	μs