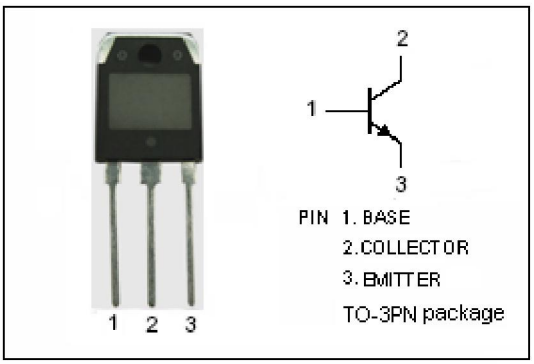
isc Silicon NPN Power Transistor 2SC2750

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 100V(Min)
- High Current Capability
- High Power Dissipation

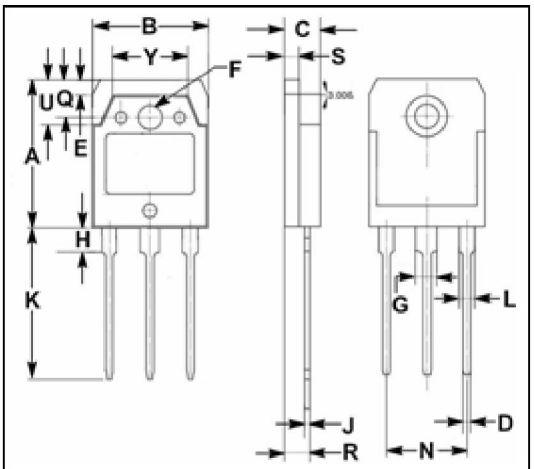


APPLICATIONS

- Designed for high speed, high current switching industrial applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	30	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @ T_C=25℃	100	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.90	20.10
B	15.38	15.42
C	4.75	4.85
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.98	3.02
H	3.20	3.40
J	0.595	0.605
K	19.95	20.25
L	1.98	2.02
N	10.89	10.91
Q	4.95	5.05
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10A; I_{B1}= 1A; L= 100μH	100			V
$V_{CEX(SUS)1}$	Collector-Emitter Sustaining Voltage	I_C= 10A; I_{B1}= -I_B= 1A; T_a= 125℃ L= 180μH; Clamped	150			V
$V_{CEX(SUS)2}$	Collector-Emitter Sustaining Voltage	I_C= 20A; I_{B1}= 2A; I_{B2}= 1A; T_a= 125℃; L= 180μH; Clamped	100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 10A; I_B= 1A			0.6	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 10A; I_B= 1A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 100V; I_E= 0			10	μA
I_{CER}	Collector Cutoff Current	V_{CE}= 100V; R_{BE}= 50Ω; T_a= 125℃			1.0	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= 100V;$V_{BE(off)}$= -1.5V; V_{CE}= 100V;$V_{BE(off)}$= -1.5V;T_a=125℃			10 500	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			10	μA
h_{FE-1}	DC Current Gain	I_C= 5A; V_{CE}= 5V	30		120	
h_{FE-2}	DC Current Gain	I_C= 10A; V_{CE}= 5V	20			

Switching Times

t_{on}	Turn-on Time	I_C= 10A, I_{B1}= -I_{B2}= 1A, V_{CC}≈ 50V; R_L= 5Ω			1.0	μs
t_{stg}	Storage Time				1.5	μs
t_f	Fall Time				0.3	μs

◆ **h_{FE-1} Classifications**

M	L	K
30-60	40-80	60-120