

isc Silicon NPN Power Transistor

2SC2751

DESCRIPTION

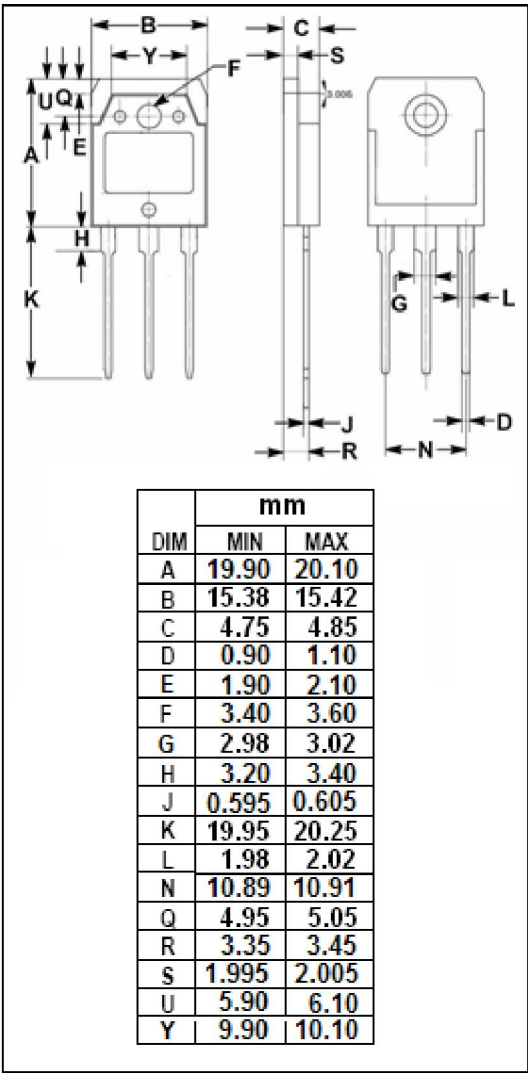
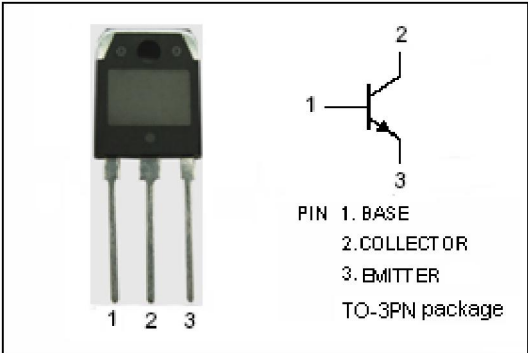
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V(\text{Min})$
- High Current Capability
- High Power Dissipation

APPLICATIONS

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

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	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	7.5	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	120	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**2SC2751****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 = 10A; I _B = 2A; L= 50 μ H	400			V
V _{CEX(SUS)1}	Collector-Emitter Sustaining Voltage	I _C = 10A; I _{B1} = -I _B = 2A; T _a = 125°C L= 180 μ H; Clamped	450			V
V _{CEX(SUS)2}	Collector-Emitter Sustaining Voltage	I _C = 20A; I _{B1} = 4A; I _{B2} = -2A; T _a = 125°C; L= 180 μ H; Clamped	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 2A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 10A; I _B = 2A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 400V; I _E = 0			100	μ A
I _{CER}	Collector Cutoff Current	V _{CE} = 400V; R _{BE} = 50 Ω; T _a = 125°C			2.0	mA
I _{CEX}	Collector Cutoff Current	V _{CE} = 400V; V _{BE(off)} = -1.5V; V _{CE} = 400V; V _{BE(off)} = -1.5V; T _a =125°C			0.1 1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			10	μ A
h _{FE-1}	DC Current Gain	I _C = 2A; V _{CE} = 5V	15		80	
h _{FE-2}	DC Current Gain	I _C = 5A; V _{CE} = 5V	10			
h _{FE-3}	DC Current Gain	I _C = 10A; V _{CE} = 5V	7			

Switching Times

t _{on}	Turn-on Time	I _C = 10A, I _{B1} = -I _{B2} = 2A, V _{CC} ≈ 150V; R _L = 15 Ω			1.0	μ s
t _{stg}	Storage Time				2.5	μ s
t _f	Fall Time				0.7	μ s

◆ h_{FE-1} Classifications

N	R	O	Y
15-30	20-40	30-60	40-80