

isc Silicon NPN Power Transistor

2SD1738

DESCRIPTION

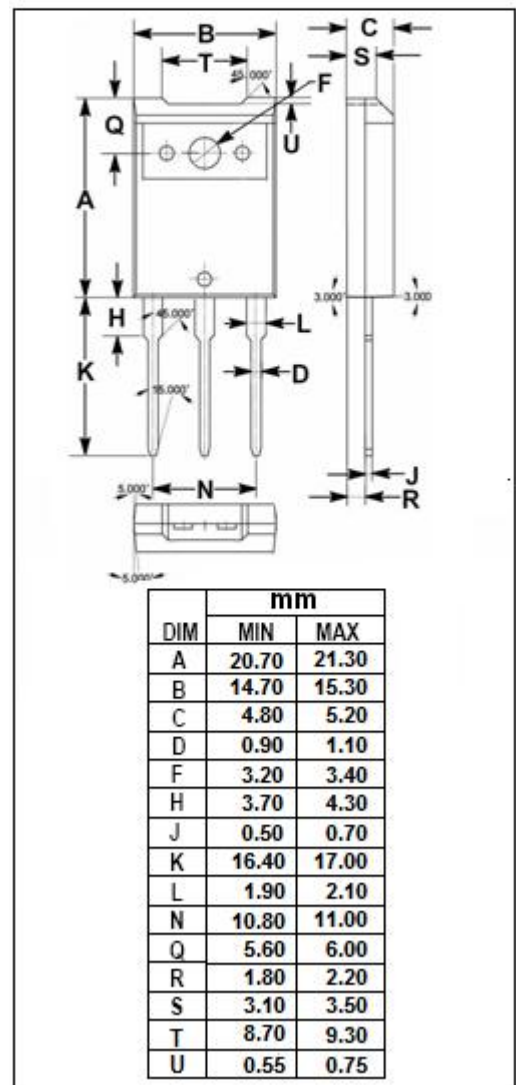
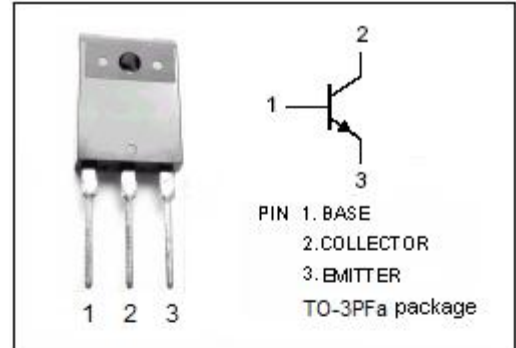
- High Voltage
- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1300	V
V_{CES}	Collector-Emitter Voltage	1300	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CP}	Collector Current-Peak	15	A
I_B	Base Current- Continuous	2	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	100	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55-150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor**2SD1738****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 1A			8.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 1A			1.5	V
h _{FE}	DC Current Gain	I _C = 1A; V _{CE} = 5V	6		30	
I _{CBO}	Collector Cutoff Current	V _{CB} = 750V; I _E = 0			10	μ A
		V _{CB} = 1300V; I _E = 0			1.0	mA
f _T	Transition Frequency	I _C = 1A; V _{CE} = 10V		2		MHz

Switching Times, Resistive Load

t _s	Storage Time	I _C = 4A; I _{B1} = 0.8A; I _{B2} = 1.6A, V _{CC} = 200V		1.5		μ s
t _f	Fall Time			0.2		μ s

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