

isc Silicon NPN Power Transistor

2SD1738

DESCRIPTION

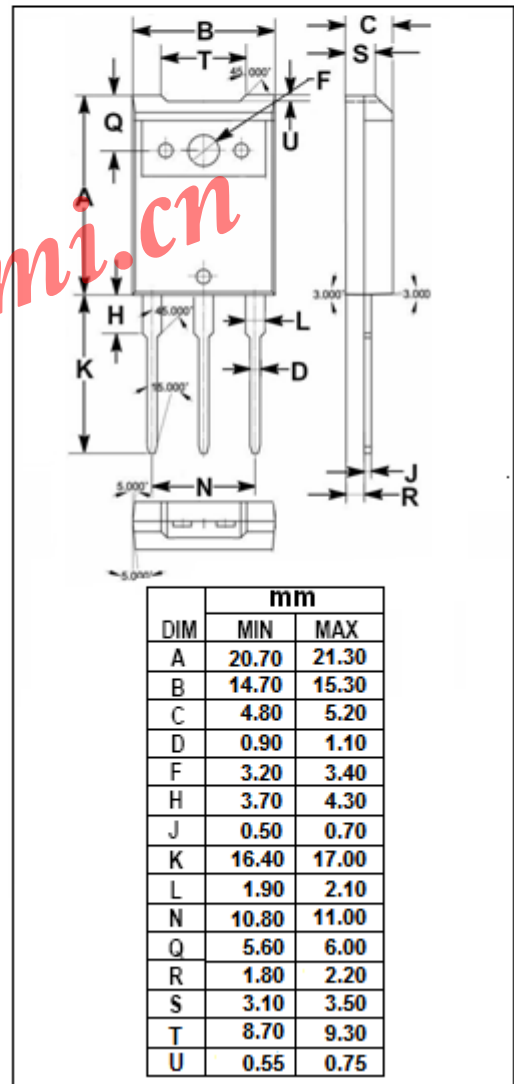
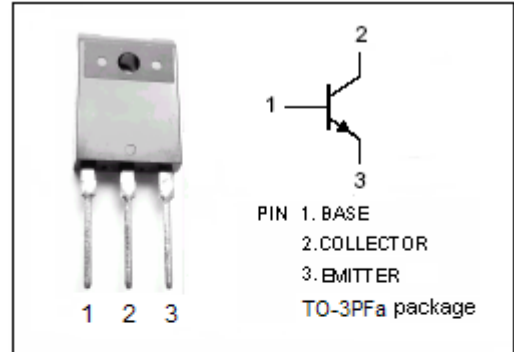
- High Voltage
- High Switching Speed
- Wide Area of Safe Operation

APPLICATIONS

- Designed for horizontal deflection output applications.

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	1500	V
V _{CES}	Collector-Emitter Voltage	1500	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°C	100	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55-150	°C



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=500\text{mA}; I_C=0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=1\text{A}$			8.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=1\text{A}$			1.5	V
h_{FE}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	6		30	
I_{CBO}	Collector Cutoff Current	$V_{CB}=750\text{V}; I_E=0$			10	μA
		$V_{CB}=1500\text{V}; I_E=0$			1.0	mA
f_T	Transition Frequency	$I_C=1\text{A}; V_{CE}=10\text{V}$		2		MHz

Switching Times, Resistive Load

t_s	Storage Time	$I_C=4\text{A}; I_{B1}=0.8\text{A}; I_{B2}=-1.6\text{A}, V_{CC}=200\text{V}$		1.5		μs
t_f	Fall Time			0.2		μs