

SPTECH Silicon NPN Power Transistor

2SC5353

DESCRIPTION

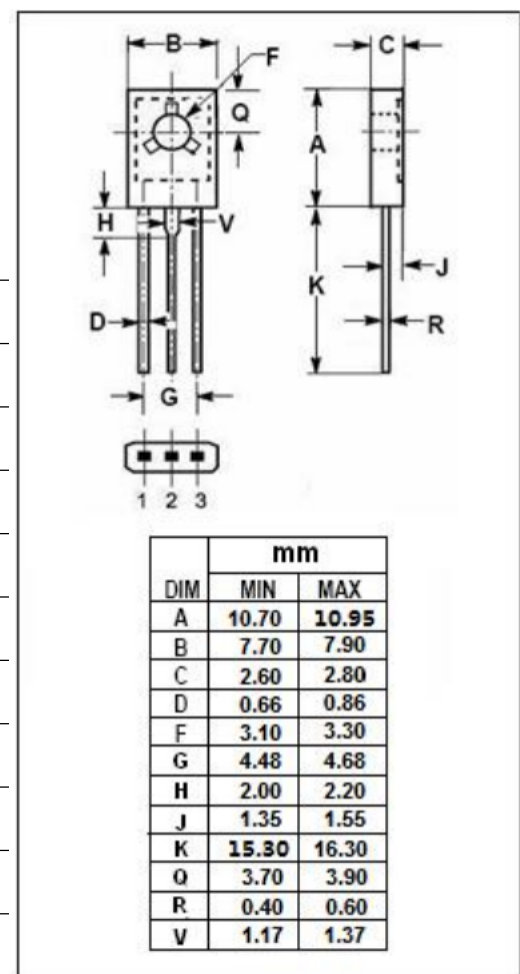
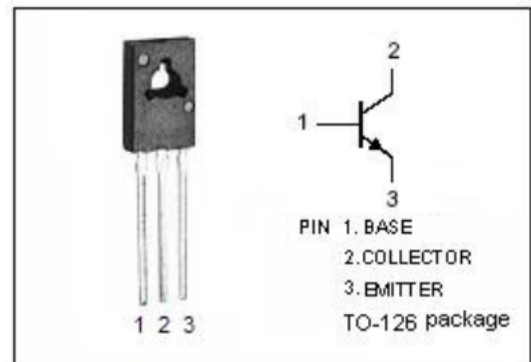
- Collector–Emitter Sustaining Voltage : $V_{CEO(SUS)} = 600V(\text{Min.})$
- Low Collector Saturation Voltage : $V_{CE(sat)} = 1V(\text{Max}) @ I_C = 1.2A$

APPLICATIONS

- Designed for use in lighting applications and low cost switch-mode power supplies

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Emitter Voltage	650	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-peak $t_p < 5\text{ms}$	5	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation $T_C=25^\circ\text{C}$	25	W
	Collector Power Dissipation $T_a=25^\circ\text{C}$	2	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector -Base Breakdown Voltage	$I_C = 1\text{mA}; I_E = 0$	650			V
$V_{(BR)CEO}$	Collector - Emitter Breakdown Voltage	$I_C = 10\text{mA}; I_B = 0$	600			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1.2\text{A}; I_B = 0.24\text{A}$			1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1.2\text{A}; I_B = 0.24\text{A}$			1.3	V
I_{CBO}	Collector Cutoff Current	$V_{CE} = 600\text{V}; I_E = 0$			0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 7\text{V}; I_C = 0$			10	uA
h_{FE-1}	DC Current Gain	$I_C = 1\text{mA}; V_{CE} = 5\text{V}$	10			
h_{FE-2}	DC Current Gain	$I_C = 0.15\text{A}; V_{CE} = 5\text{V}$	15			

Switching Times, Inductive Load

t_s	Storage Time	$I_{B1} = 0.24\text{A};$			4	μs
t_f	Fall Time				0.5	μs