

Silicon PNP Power Transistor

2SB753

DESCRIPTION

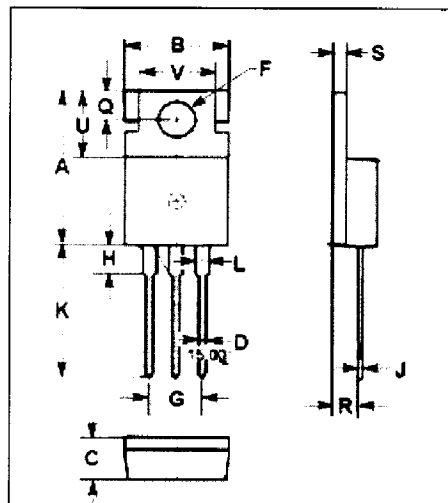
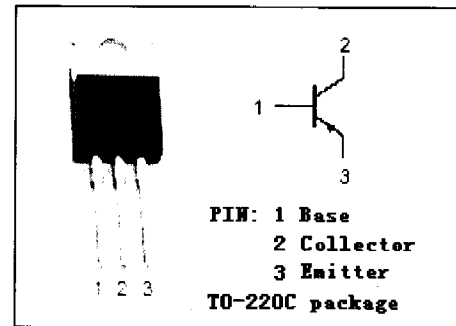
- High Collector Current: $I_C = -7A$
- Low Collector Saturation Voltage
 $V_{CE(sat)} = -0.5V(\text{Max}) @ I_C = -4A$
- High Collector Power Dissipation
- Complement to Type 2SD843

APPLICATIONS

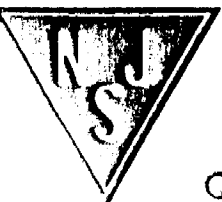
- High current switching applications
- Power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-7.0	V
I_C	Collector Current-Continuous	-7	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ C$	1.5	W
	Total Power Dissipation @ $T_C = 25^\circ C$	40	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.90	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	13.00	13.40
L	1.10	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -50mA ; I _B = 0	-80			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -4A ; I _B = -0.4A			-0.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -4A ; I _B = -0.4A			-1.4	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -100V ; I _E = 0			-5	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V ; I _C = 0			-5	μ A
h _{FE-1}	DC Current Gain	I _C = -1A ; V _{CE} = -1V	70		240	
h _{FE-2}	DC Current Gain	I _C = -4A ; V _{CE} = -1V	30			
f _T	Current-Gain—Bandwidth Product	I _C = -1A ; V _{CE} = -4V		10		MHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = -10V ; f _{test} = 1MHz		250		pF

Switching times

t _{on}	Turn-on Time	R _L = 10Ω , V _{CC} = -30V I _{B1} = -I _{B2} = -0.3A		0.4		μ s
t _{stg}	Storage Time			2.5		μ s
t _f	Fall Time			0.5		μ s

◆ h_{FE-1} Classifications

O	Y
70-140	120-240