

NPN SILICON TRANSISTOR
2SD773

DESCRIPTION

The 2SD773 is designed for use in driver and output stages of audio frequency amplifiers.

FEATURES

- High Total Power Dissipation $P_T : 1.0 \text{ W}$ ($T_a = 25^\circ \text{C}$)
- High DC Current Gain $h_{FE} : 250 \text{ TYP.}$ ($I_C = 100 \text{ mA}$)
- Low Collector Saturation Voltage
 $V_{CE(\text{sat})} : 0.2 \text{ V TYP.}$ ($I_C = 1.0 \text{ A}$)
- Complementary to the NEC 2SB733 PNP Transistor.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature -55 to +150 °C

Junction Temperature 150 °C Maximum

Maximum Power Dissipation ($T_a=25^\circ\text{C}$)

Total Power Dissipation 1.0 W

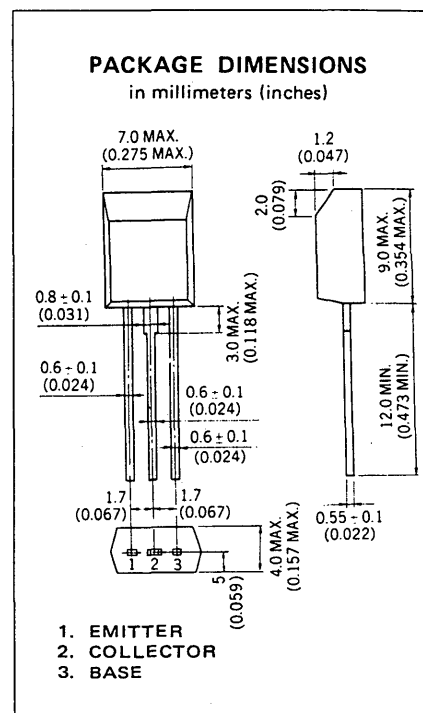
Maximum Voltages and Current ($T_a=25^{\circ}\text{C}$)

V_{CB0} Collector to Base Voltage 20 V

V_{CEQ} **Collector to Emitter Voltage 16 V**

V_{EBQ} Emitter to Base Voltage 6.0 V

I_C Collector Current 2.0 A



ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
hFE1	DC Current Gain	135	250	600	—	V _{CE} =2.0 V, I _C =100 mA
hFE2	DC Current Gain	100			—	V _{CE} =1.0 V, I _C =1.0 A
f _T	Gain Bandwidth Product	50	110		MHz	V _{CE} =2.0 V, I _E =-10 mA
C _{ob}	Output Capacitance		16	35	pF	V _{CB} =10 V, I _E =0, f=1.0 MHz
I _{CBO}	Collector Cutoff Current			100	nA	V _{CB} =16 V, I _E =0
I _{EBO}	Emitter Cutoff Current			100	nA	V _{EB} =6.0 V, I _C =0
V _{BE}	Base to Emitter Voltage	0.55	0.60	0.65	V	V _{CE} =6.0 V, I _C =5.0 mA
V _{CE(sat)}	Collector Saturation Voltage		0.20	0.30	V	I _C =1.0 A, I _B =50 mA
V _{BE(sat)}	Base Saturation Voltage		0.93	1.20	V	I _C =1.0 A, I _B =50 mA

Classification of h_{FE1}

Rank	L ₂	K ₃	K ₄	U ₄	U ₅
Range	135 – 270	200 – 320	250 – 400	300 – 480	360 – 600

Test Conditions: $V_{CE}=2.0\text{ V}$, $I_C=100\text{ mA}$.

TYPICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

