

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
 $V_{CE(sat)} : 0.2 \text{ V TYP.}$ ($I_C = 1.0 \text{ A}$)
 - Complementary to the NEC 2SB733 PNP Transistor.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature -55 to $+150^\circ \text{C}$

Junction Temperature 150°C Maximum

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

Total Power Dissipation 1.0 W

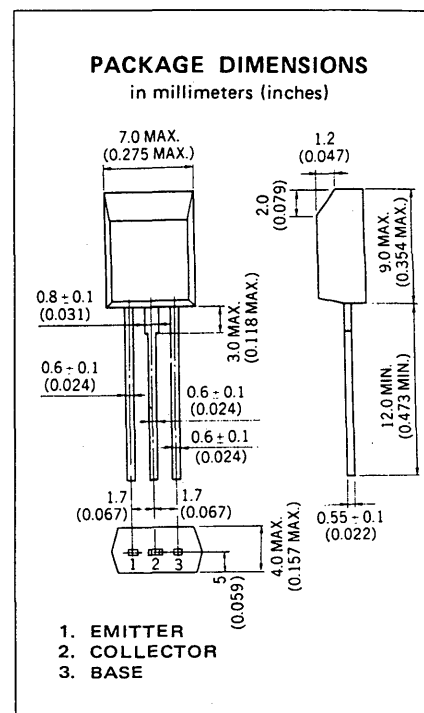
Maximum Voltages and Current ($T_a = 25^\circ \text{C}$)

V_{CBO} Collector to Base Voltage 20 V

V_{CEO} Collector to Emitter Voltage 16 V

V_{EBO} Emitter to Base Voltage 6.0 V

I_C Collector Current 2.0 A



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

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE1}	DC Current Gain	135	250	600	—	$V_{CE} = 2.0 \text{ V}, I_C = 100 \text{ mA}$
h_{FE2}	DC Current Gain	100			—	$V_{CE} = 1.0 \text{ V}, I_C = 1.0 \text{ A}$
f_T	Gain Bandwidth Product	50	110		MHz	$V_{CE} = 2.0 \text{ V}, I_E = -10 \text{ mA}$
C_{ob}	Output Capacitance		16	35	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1.0 \text{ MHz}$
I_{CBO}	Collector Cutoff Current			100	nA	$V_{CB} = 16 \text{ V}, I_E = 0$
I_{EBO}	Emitter Cutoff Current			100	nA	$V_{EB} = 6.0 \text{ V}, I_C = 0$
V_{BE}	Base to Emitter Voltage	0.55	0.60	0.65	V	$V_{CE} = 6.0 \text{ V}, I_C = 5.0 \text{ mA}$
$V_{CE(sat)}$	Collector Saturation Voltage		0.20	0.30	V	$I_C = 1.0 \text{ A}, I_B = 50 \text{ mA}$
$V_{BE(sat)}$	Base Saturation Voltage		0.93	1.20	V	$I_C = 1.0 \text{ A}, I_B = 50 \text{ mA}$

Classification of h_{FE1}

Rank	L2	K3	K4	U4	U5
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 ($T_a=25^\circ\text{C}$)

