



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DXTD882

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

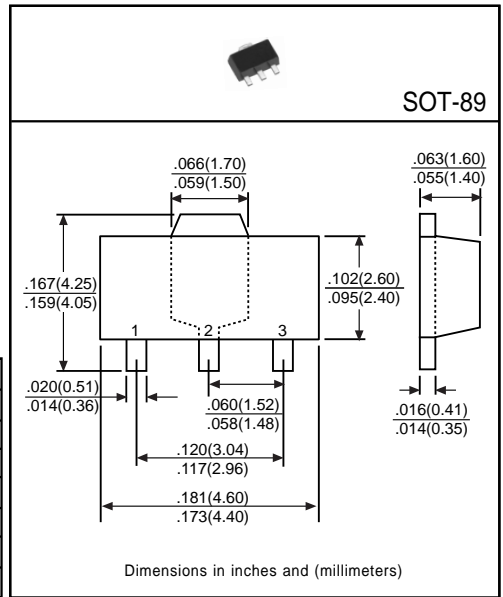
Designed for the output stage of 0.75W audio, voltage regulator, and relay driver.

Pinning

- 1 = Base
- 2 = Collector
- 3 = Emitter

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CE0}	30	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current	I _C	3	A
Total Power Dissipation	P _D	1.5	W
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-55 to +150	°C



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV _{CB0}	40	-	-	V	I _C =100μA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CE0}	30	-	-	V	I _C =1mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	5	-	-	V	I _E =10μA, I _C =0
Collector Cutoff Current	I _{CBO}	-	-	1	μA	V _{CB} =30V, I _E =0
Emitter Cutoff Current	I _{EBO}	-	-	1	μA	V _{EB} =3V, I _B =0
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	-	0.5	V	I _C =2A, I _B =0.2A
Base-Emitter Saturation Voltage ⁽¹⁾	V _{BE(sat)}	-	-	2	V	I _C =2A, I _B =0.2A
DC Current Gain ⁽¹⁾	h _{FE1}	30	-	-	-	I _C =20mA, V _{CE} =2V
	h _{FE2}	100	-	500	-	I _C =1A, V _{CE} =2V
Transition Frequency	f _T	-	90	-	MHz	I _C =0.1A, V _{CE} =5V, f=100MHz
Output Capacitance	C _{ob}	-	45	-	pF	V _{CB} =10V, f=1MHz, I _E =0

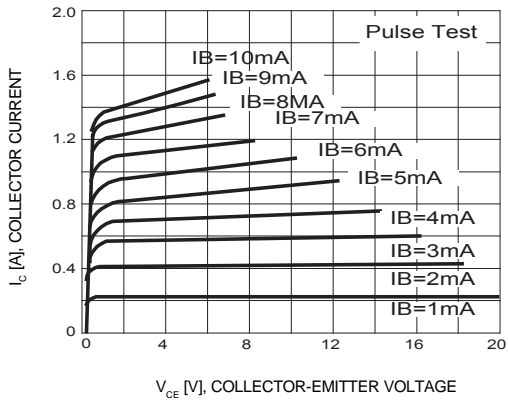
(1) Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

Classification of h_{FE2}

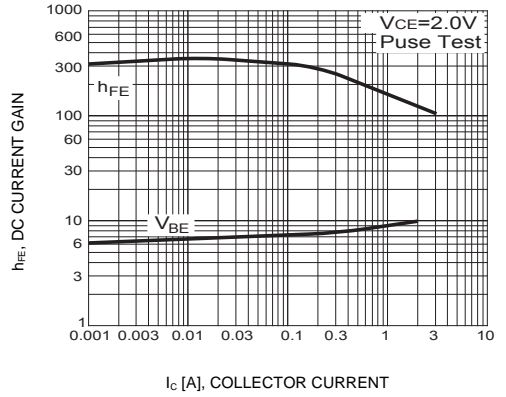
Rank	Q	P	E
Range	100~200	160~320	250~500

Electrical Characteristic Curves

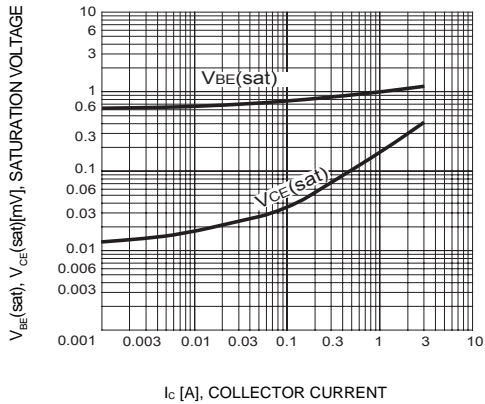
Typical Output Characteristics



DC current Gain



Collector-Emitter Saturation Voltage



Current Gain Bandwidth Product

