DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

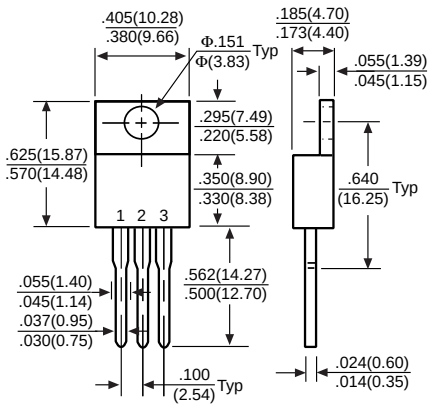
BU407

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

Designed for use in TV horizontal output and switching applications.

TO-220AB



Dimensions in inches and (millimeters)

Pinning

1 = Base
2 = Collector
3 = Emitter

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	150	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	7	A
Base Current	I_B	4	A
Total Power Dissipation(T_C=25°C)	P_D	60	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-Emitter Breakdown Voltage	BV_{CEO}	150	-	-	V	I_C=100mA, I_B=0
Collector Cutoff Current	I_{CES}	-	-	5	mA	V_{CE}=400V
Emitter Cutoff Current	I_{EBO}	-	-	1	mA	V_{EB}=6V, I_C=0
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)}$	-	-	1	V	I_C=5A, I_B=0.5A
Base-Emitter Saturation Voltage(1)	$V_{BE(sat)}$	-	-	1.2	V	I_C=5A, I_B=0.5A
DC Current Gain(1)	h_{FE1}	25	-	-	-	I_C=0.5A, V_{CE}=5V
	h_{FE2}	35	-	200	-	I_C=2A, V_{CE}=5V
	h_{FE3}	10	-	-	-	I_C=2A, V_{CE}=5V
Transition Frequency	f_T	10	-	-	MHz	I_C=0.5A, V_{CE}=10V, f=1MHz

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

Classification of h_{FE2}

Rank	B	C	D
Range	35~85	75~125	115~200