DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

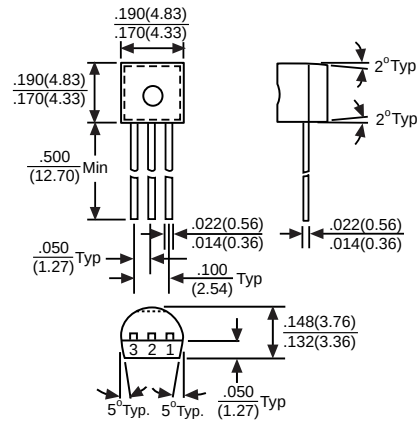
MPSA43

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

Designed for applications requiring high breakdown voltage.

TO-92



Dimensions in inches and (millimeters)

Pinning

1 = Emitter
2 = Base
3 = Collector

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	200	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	500	mA
Total Power Dissipation	P_D	625	mW
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 Volatge	BV_{CBO}	200	-	-	V	I_C=100μA, I_E=0
Collector-Emitter Breakdown Voltage	BV_{CEO}	200	-	-	V	I_C=1mA, I_B=0
Emitter-Base Breakdown Volatge	BV_{EBO}	6	-	-	V	I_E=10μA, I_C=0
Collector Cutoff Current	I_{CBO}	-	-	0.1	μA	V_{CB}=200V, I_E=0
Emitter Cutoff Current	I_{EBO}	-	-	0.1	μA	V_{EB}=6V, I_C=0
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)}$	-	-	0.4	V	I_C=20mA, I_B=2mA
Base-Emitter Saturation Voltage(1)	$V_{BE(sat)}$	-	-	0.9	V	I_C=20mA, I_B=2mA
DC Current Gain(1)	h_{FE1}	25	-	-	-	I_C=1mA, V_{CE}=10V
	h_{FE2}	40	-	-	-	I_C=10mA, V_{CE}=10V
	h_{FE3}	40	-	-	-	I_C=30mA, V_{CE}=10V
Transition Frequency	f_T	50	-	-	MHz	I_C=10mA, V_{CE}=20V, f=100MHz
Output Capacitance	C_{ob}	-	-	4	pF	V_{CB}=20V, f=1MHz

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

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