



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

MJD32C

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

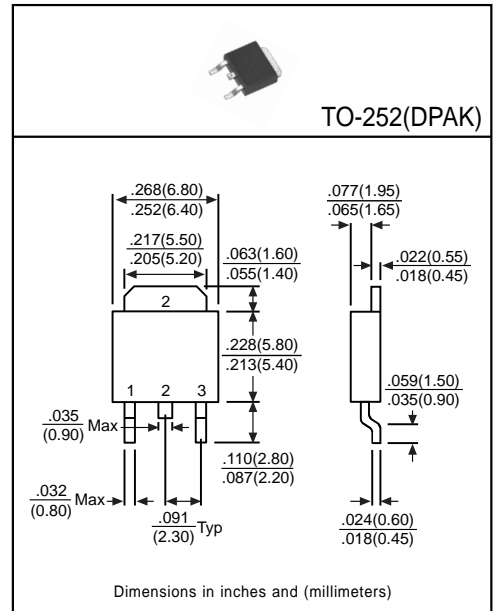
Designed for use in general purpose amplifier and switching applications.

Pinning

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

Absolute Maximum Ratings( $T_A=25^\circ\text{C}$ )

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	-100	V
Collector-Emitter Voltage	$V_{CE0}$	-100	V
Emitter-Base Voltage	$V_{EB0}$	-5	V
Collector Current	$I_C$	-3	A
Total Power Dissipation( $T_C=25^\circ\text{C}$ )	$P_D$	15	W
Junction Temperature	$T_J$	+150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$



Electrical Characteristics

(Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$BV_{CB0}$	-100	-	-	V	$I_C=-1\text{mA}, I_E=0$
Collector-Emitter Breakdown Voltage	$BV_{CE0}$	-100	-	-	V	$I_C=-30\text{mA}, I_B=0$
Collector Cutoff Current	$I_{CES}$	-	-	-20	$\mu\text{A}$	$V_{CE}=-100\text{V}, V_{BE}=0$
	$I_{CEO}$	-	-	-50	$\mu\text{A}$	$V_{CE}=-60\text{V}, I_B=0$
Emitter Cutoff Current	$I_{EBO}$	-	-	-1	mA	$V_{EB}=-5\text{V}, I_C=0$
Collector-Emitter Saturation Voltage <sup>(1)</sup>	$V_{CE(sat)}$	-	-	-1.2	V	$I_C=-3\text{A}, I_B=-375\text{mA}$
Base-Emitter On Voltage <sup>(1)</sup>	$V_{BE(on)}$	-	-	-1.8	V	$I_C=-3\text{A}, V_{CE}=-4\text{V}$
DC Current Gain <sup>(1)</sup>	$h_{FE1}$	25	-	-	-	$I_C=-1\text{A}, V_{CE}=-4\text{V}$
	$h_{FE2}$	10	-	50	-	$I_C=-3\text{A}, V_{CE}=-4\text{V}$
Transition Frequency	$f_T$	3	-	-	MHz	$I_C=-0.5\text{A}, V_{CE}=-10\text{V}, f=1\text{MHz}$

(1) Pulse Test: Pulse Width  $\leq 380\mu\text{s}$ , Duty Cycle  $\leq 2\%$