

MJD3055

NPN EPITAXIAL SILICON TRANSISTOR

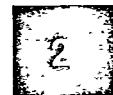
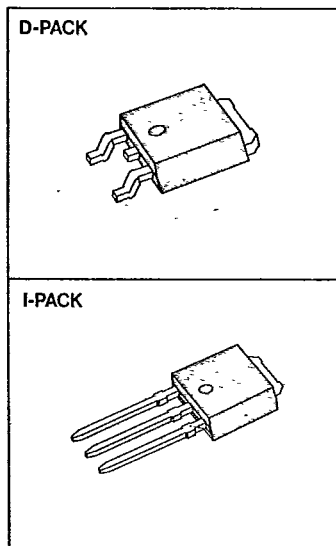
T-33-05

**GENERAL PURPOSE AMPLIFIER.
LOW SPEED SWITCHING APPLICATIONS.
D-PACK FOR SURFACE MOUNT
APPLICATIONS**

- Lead Formed for Surface Mount Applications (No Suffix)
- Straight Lead (I-PACK, "-1" Suffix)
- Electrically Similar to Popular MJE3055
- DC Current Gain Specified to 10A
- High Current Gain-Bandwidth Product:
 $f_T = 2\text{MHz (MIN)}$, $I_C = 500\text{mA}$

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	70	V
Collector Emitter Voltage	V_{CEO}	60	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	10	A
Base Current	I_B	6	A
Collector Dissipation ($T_c = 25^\circ\text{C}$)	P_C	20	W
Collector Dissipation ($T_a = 25^\circ\text{C}$)	P_c	1.75	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ\text{C}$



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

Characteristic	Symbol	Test Condition	Min	Max	Unit
*Collector Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C = 30\text{mA}$, $I_B = 0$	60		V
Collector Cutoff Current	I_{CEO}	$V_{CE} = 30\text{V}$, $I_B = 0$		50	μA
Collector Cutoff Current	I_{CBO}	$V_{CB} = 70\text{V}$, $I_E = 0$		2	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$		0.5	mA
*DC Current Gain	h_{FE}	$V_{CE} = 4\text{V}$, $I_C = 4\text{A}$	20	100	
		$V_{CE} = 4\text{V}$, $I_C = 10\text{A}$	5		
*Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4\text{A}$, $I_B = 0.4\text{A}$		1.1	V
		$I_C = 10\text{A}$, $I_B = 3.3\text{A}$		8	V
*Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 4\text{A}$, $I_C = 4\text{A}$		1.8	V
Current Gain Bandwidth Product	f_T	$V_{CE} = 10\text{V}$, $I_C = 500\text{mA}$ $f = 500\text{KHz}$	2		MHz

* Pulse Test: $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

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