



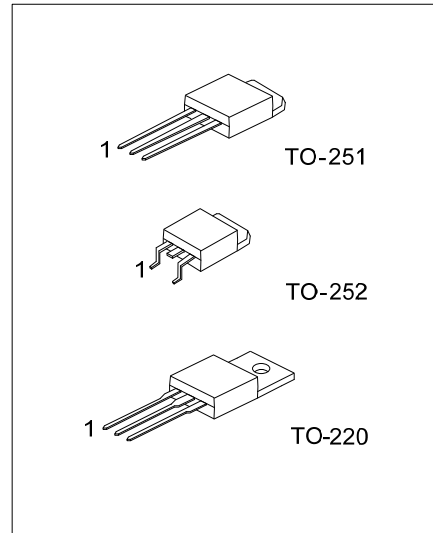
## MJE3055T

### NPN SILICON TRANSISTOR

## HIGH VOLTAGE TRANSISTOR

### DESCRIPTION

The UTC **MJE3055T** is designed for general purpose of amplifier and switching applications.



Lead-free: MJE3055TL  
Halogen-free: MJE3055TG

### ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
MJE3055T-TA3-T	MJE3055TL-TA3-T	MJE3055TG-TA3-T	TO-220	B	C	E	Tube
MJE3055T-TM3-T	MJE3055TL-TM3-T	MJE3055TG-TM3-T	TO-251	B	C	E	Tube
MJE3055T-TN3-R	MJE3055TL-TN3-R	MJE3055TG-TN3-R	TO-252	B	C	E	Tape Reel

<p>MJE3055TL-TA3-T</p>	<p>(1) R: Tape Reel, T: Tube</p> <p>(2) TA3: TO-220, TM3: TO-251, TN3: TO-252</p> <p>(3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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## NPN SILICON TRANSISTOR

### ■ ABSOLUTE MAXIMUM RATINGS ( $T_C=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CB0}$	70	V
Collector-Emitter Voltage	$V_{CE0}$	60	V
Emitter-Base Voltage	$V_{EB0}$	5	V
Total Power Dissipation	TO-220	75	W
	TO-251/TO-252	20	W
Collector Current	$I_C$	10	A
Base Current	$I_B$	6	A
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

### ■ ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	$BV_{CE0}$	$I_C=200\text{mA}$	60			V
Collector-Base Breakdown Voltage	$BV_{CB0}$	$I_C=10\text{mA}$	70			V
Emitter-Base Breakdown Voltage	$BV_{EB0}$	$I_E=10\text{mA}$	5			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=70\text{V}$			1	mA
	$I_{CEO}$	$V_{CE}=30\text{V}$			700	$\mu\text{A}$
	$I_{CEX}$	$V_{CE}=70\text{V}, V_{EB(OFF)}=1.5\text{V}$			1	mA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5\text{V}$			5	mA
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)1}$	$I_C=4\text{A}, I_B=0.4\text{A}$			1.1	V
	$V_{CE(SAT)2}$	$I_C=10\text{A}, I_B=3.3\text{A}$			8	V
Base-Emitter on Voltage	$V_{BE(ON)}$	$V_{CE}=4\text{V}, I_C=4\text{A}$			1.8	V
DC Current Gain (Note)	$h_{FE1}$	$V_{CE}=4\text{V}, I_C=4\text{A}$	20		100	
	$h_{FE2}$	$V_{CE}=4\text{V}, I_C=10\text{A}$	5			
Current Gain Bandwidth Product	$f_T$	$V_{CE}=10\text{V}, I_C=0.5\text{A}, f=1\text{MHz}$	2			MHZ

Note: Pulse test:  $PW \leq 300\mu\text{s}$ , duty cycle  $\leq 2\%$  Pulse

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