



MP2510

Preliminary **PNP EPITAXIAL SILICON TRANSISTOR**

PNP TRANSISTOR

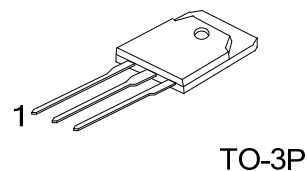
DESCRIPTION

The UTC **MP2510** is a PNP transistor, it uses UTC's advanced technology to provide the customers with high DC current gain and high collector-emitter breakdown voltage, etc.

The UTC **MP2510** is suitable for automobile power amplifiers, etc.

FEATURES

- * High DC current gain (Min = 40@ $V_{CE} = 4V$, $I_C = 12A$)
- * High collector-emitter breakdown voltage (Min = -100V)



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MP2510L-x-T3P-T	MP2510G-x-T3P-T	TO-3P	B	C	E	Tube

Pin Assignment: B: Base C: Collector E: Emitter

MP2510L-x-T3P-T (1) Packing Type (2) Package Type (3) Rank (4) Halogen Free	(1) T: Tube (2) T3P: TO-3P (3) refer to CLASSIFICATION OF h_{FE} (4) L: Lead Free, G: Halogen Free
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■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-100	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-25	A
Base Current	I_B	-5	A
Collector Power Dissipation ($T_C=25^\circ\text{C}$)	P_C	125	W
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 ($T_A=25^\circ\text{C}$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	$V_{CB}=100\text{V}$			-10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=6\text{V}$			-10	μA
Collector-Emitter Voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}$	-100			V
DC Current Gain (Note 1)	h_{FE}	$V_{CE}=4\text{V}$, $I_C=12\text{A}$	40		120	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=12\text{A}$, $I_B=1.2\text{A}$			-1.5	V
Base- Emitter Saturation Voltage	$V_{BE(ON)}$	$V_{CE}=4\text{V}$, $I_C=12\text{A}$			-1.8	V
Cut-Off Frequency	f_T	$V_{CE}=12\text{V}$, $I_E=-1\text{A}$		20		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0\text{A}$, $f=1\text{MHz}$		200		pF

■ CLASSIFICATION OF h_{FE}

RANK	R	O
h_{FE1}	40~80	60~120

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