



MN2510

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

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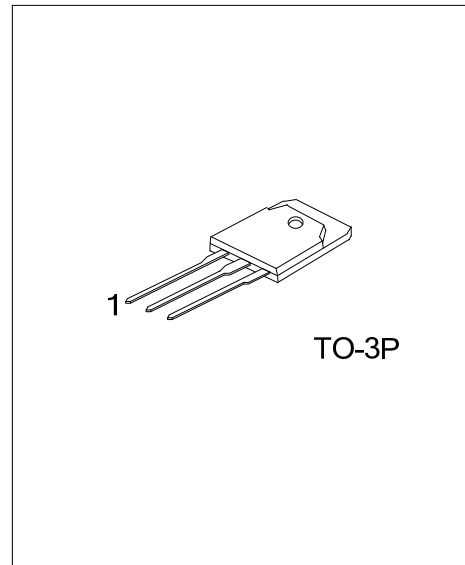
DESCRIPTION

The UTC **MN2510** is an NPN 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 **MN2510** 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	
MN2510L-x-T3P-T	MN2510G-x-T3P-T	TO-3P	B	C	E	Tube

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

Ordering Number	Description
MN2510L-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



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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°C)	P _C	125	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ 150	°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°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I _{CBO}	V _{CB} =100V			10	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =6V			10	μA
Collector-Emitter Voltage	V _{(BR)CEO}	I _C =50mA	100			V
DC Current Gain (Note 1)	h _{FE}	V _{CE} =4V, I _C =12A	40		120	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =12A, I _B =1.2A			1.5	V
Base- Emitter Saturation Voltage	V _{BE(ON)}	V _{CE} =4V, I _C =12A			1.8	V
Cut-Off Frequency	f _T	V _{CE} =12V, I _E =-1A		20		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0A, f=1MHz		200		pF

■ CLASSIFICATION OF h_{FE}

RANK	R	O
h _{FE1}	40~80	60~120

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