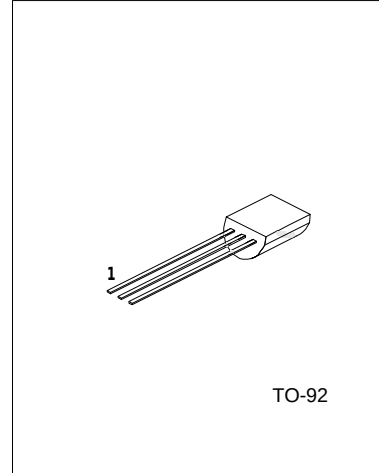


UTCMPSH10 NPN EPITAXIAL SILICON TRANSISTOR

HIGH VOLTAGE TRANSISTOR

DESCRIPTION

The UTC MPSH10 is designed for using as VHF and UHF oscillators and VHF Mixer in a tuner of a TV receiver.



1: EMITTER 2:BASE 3:COLLECTOR

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	3	V
Total Power Dissipation($T_a=25^{\circ}\text{C}$)	P_c	250	mW
Collector current	I_c	50	mA
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV_{CBO}	$I_c=100\mu\text{A}$	30			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_c=1\text{mA}$	25			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E=10\mu\text{A}$			3	V
Collector cut-off current	I_{CBO}	$V_{CB}=25\text{V}$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=2\text{V}$			100	nA
Collector-emitter saturation voltage	$V_{CE(SAT)}$	$I_C=4\text{mA}, I_B=400\mu\text{A}$			500	mV
Collector-emitter on voltage	$V_{CE(ON)}$	$V_{CE}=10\text{V}, I_C=4\text{mA}$			950	mV
DC current gain	h_{FE}	$V_{CE}=10\text{V}, I_C=4\text{mA}, f=100\text{MHZ}$	60			
Output capacitance	C_{ob}	$V_{CE}=10\text{V}, f=1\text{MHZ}$			0.7	pF
Current gain bandwidth product	f_T	$V_{CE}=10\text{V}, I_C=4\text{mA}, f=100\text{MHZ}$	650			MHZ