

UTC MPSA13 NPN EPITAXIAL SILICON TRANSISTOR

DARLINGTON TRANSISTOR

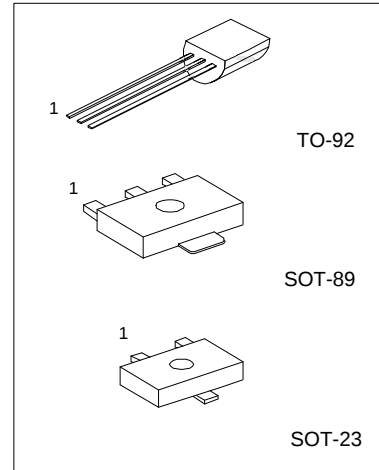
DESCRIPTION

The UTC MPSA13 is a darlington transistor.

FEATURES

*Collector-Emitter Voltage: $V_{ces} = 30V$

*Collector Dissipation : P_c (mas) = 625 mW



TO-92 1:EMITTER 2:BASE 3:COLLECTOR

SOT-89 1:EMITTER 2:COLLECTOR 3:BASE

SOT-23 1:EMITTER 2:BASE 3:COLLECTOR

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

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Dissipation($T_c=25^{\circ}C$)	P_c	625	mW
Collector Current	I_c	500	mA
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}C$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_c=100\mu A, I_B=0$	30		V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V, I_E=0$		100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=10V, I_c=0$		100	μA
DC Current Gain	h_{FE}	$V_{CE}=5V, I_c=100mA$	10000		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c=100mA, I_B=0.1mA$		1.5	V
Base-Emitter on Voltage	$V_{BE(on)}$	$V_{CE}=5V, I_c=100mA$		1.45	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5V, I_c=10mA, f=100MHz$	125		MHz

Pulse test: Pulse Width<300 μs , Duty Cycle=2%