

UTC MPSA13 NPN EPITAXIAL SILICON TRANSISTOR

DARLINGTON TRANSISTOR

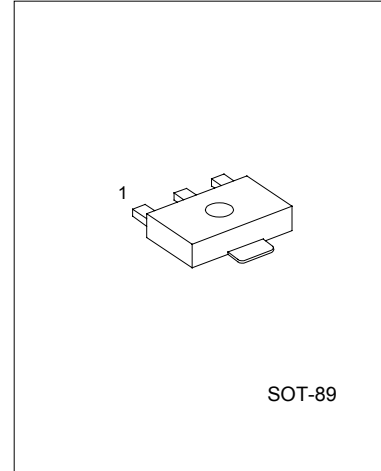
DESCRIPTION

The UTC MPSA13 is a Darlington transistor.

FEATURES

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

*Collector Dissipation: $P_c (mas) = 625 mW$



1: EMITTER 2: COLLECTOR 3: BASE

ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}C$)

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

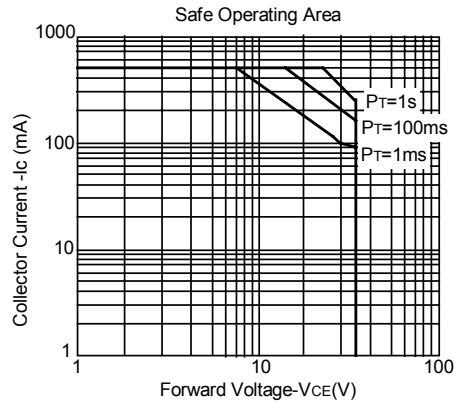
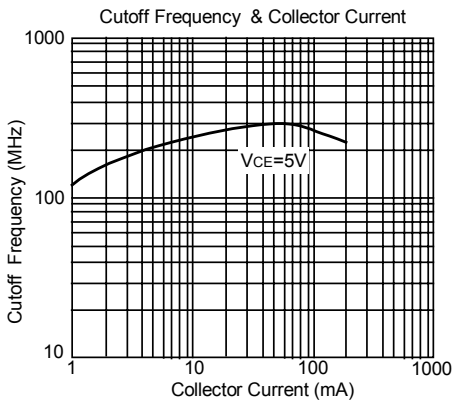
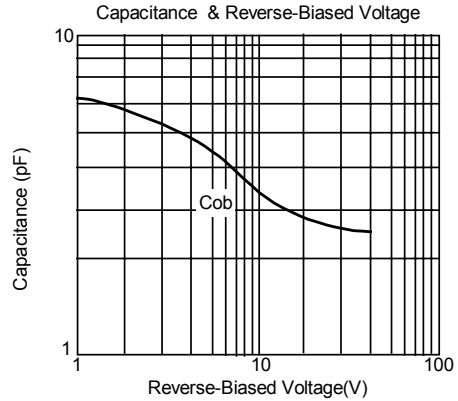
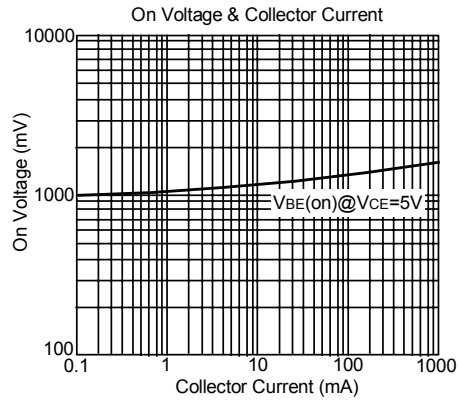
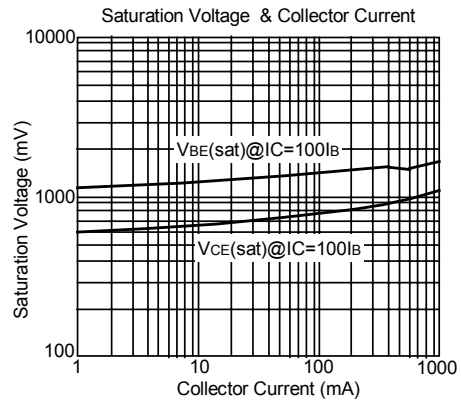
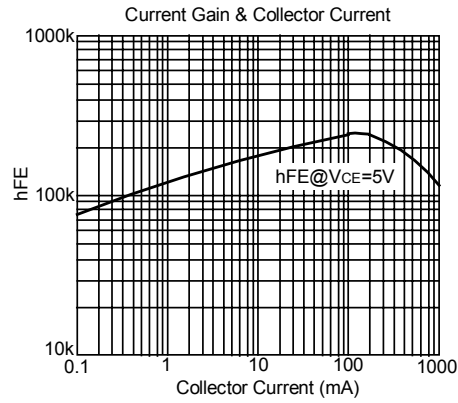
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CES}	$I_c=100\mu A, I_B=0$	30		V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V, I_E=0$		100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=10V, I_c=0$		100	nA
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	$V_{BE(on)}$	$V_{CE}=5V, I_c=100mA$		2.0	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5V, I_c=10mA, f=100MHz$	125		MHz

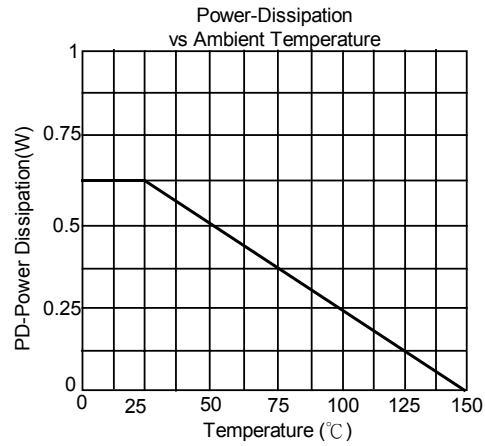
Pulse test: Pulse Width<300 μs , Duty Cycle=2%

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TYPICAL CHARACTERISTICS



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