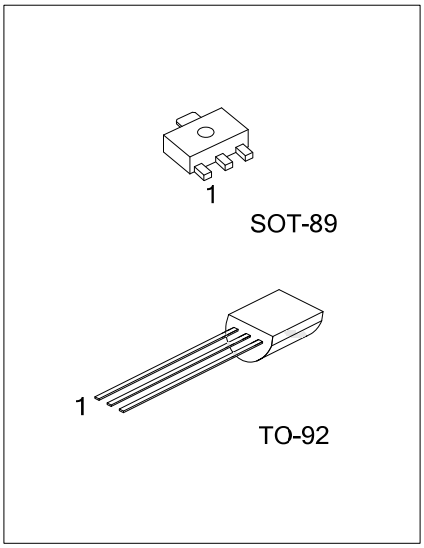
MPSA113

NPN EPITAXIAL SILICON TRANSISTOR

DARLINGTON TRANSISTOR



■ DESCRIPTION

The UTC **MPSA113** is a Darlington transistor.

■ FEATURES

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

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
MPSA113-AB3-R	MPSA113L-AB3-R	MPSA113G-AB3-R	SOT-89	E	C	B	Tape Reel
MPSA113-T92-B	MPSA113L-T92-B	MPSA113G-T92-B	TO-92	E	B	C	Tape Box
MPSA113-T92-K	MPSA113L-T92-K	MPSA113G-T92-K	TO-92	E	B	C	Bulk

Note: Pin assignment: E: EMITTER, C: COLLECTOR, B: BASE

MPSA113L-AB3-R
(1)Packing Type
(2)Package Type
(3)Lead Free

(1) B: Tape Box, K: Bulk, R: Tape Reel
(2) AB3: SOT-89, T92: TO-92
(3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn

■ ABSOLUTE MAXIMUM RATING (Operating temperature range applies unless otherwise specified.)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CES}	30	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Dissipation(Tc=25°C)	P_C	625	mW
Collector Current	I_C	500	mA
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55 ~ +150	℃

Note: 1. 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_J=25℃, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CES}	I_C=100μA, 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	30000			
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

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