UTC UNISONIC TECHNOLOGIES CO., LTD

MPSA13

NPN EPITAXIAL SILICON TRANSISTOR

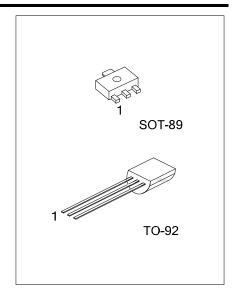
DARLINGTON TRANSISTOR

DESCRIPTION

The UTC MPSA13 is a Darlington transistor.

FEATURES

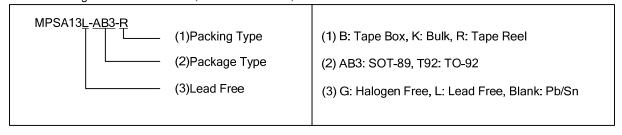
* Collector-Emitter Voltage: V_{CES} = 30V



ORDERING INFORMATION

	Order Number			Doolsogo	Pin Assignment			Dooking	
	Normal	Lead Free	Halogen Free	Package	1	2	3	Packing	
Ī	MPSA13-AB3-R	MPSA13L-AB3-R	MPSA13G-AB3-R	SOT-89	Е	С	В	Tape Reel	
Ī	MPSA13-T92-B	MPSA13L-T92-B	MPSA13G-T92-B	TO-92	Е	В	С	Tape Box	
Ī	MPSA13-T92-K	MPSA13L-T92-K	MPSA13G-T92-K	TO-92	Е	В	С	Bulk	

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



■ ABSOLUTE MAXIMUM RATING (Ta=25°C, 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 Current	Ic	500	mA
Collector Dissipation	Pc	625	mW
Junction Temperature	TJ	125	$^{\circ}\mathbb{C}$
Storage Temperature	T _{STG}	-40 ~ +150	$^{\circ}$ C

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 (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	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	IE _{BO}	$V_{EB}=10V$, $I_{C}=0$			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

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

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