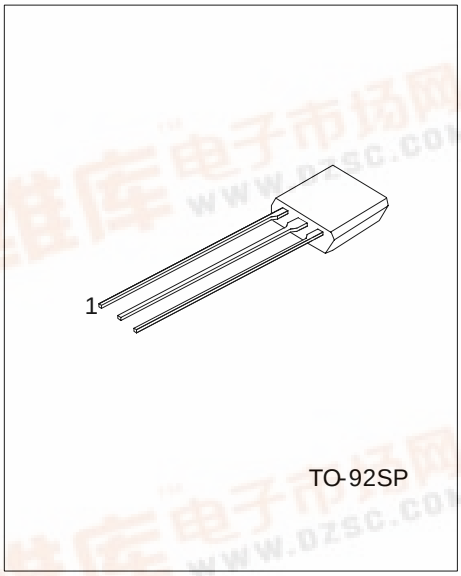
UNISONIC TECHNOLOGIES CO., LTD

2SD2470

NPN SILICON TRANSISTOR

STROBO AND DC/DC CONVERTERS



TO-92SP

*Pb-free plating product number: 2SD2470L

■ FEATURES

* Low saturation voltage
  V= 0.25V(typ) at I_C/I_B= 3A/0.1A
* Collector current of 5A is possible

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
2SD2470-x-T9S-K	2SD2470L-x-T92-K	TO-92SP	E	C	B	Bulk

2SD2470L-x-T9S-K

(1)Packing Type
(2)Package Type
(3)Rank
(4)Lead Plating

(1) K: Bulk
(2) T9S: TO-92SP
(3) refer to Classification of h_{FE}
(4) L: Lead Free Plating Blank: Pb/Sn

2SD2470

NPN SILICON TRANSISTOR

■ ABSOLUTE MAXIMUM RATING (Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	15	V
Collector-Emitter Voltage	V_{CEO}	10	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current (DC)	I_C	5	A
Collector Current (PULSE)*	I_{CP}	8	A
Collector Power Dissipation	P_C	0.4	W
Junction Temperature	T_J	+150	℃
Storage Temperature	T_{STG}	-55 ~ +150	℃

Note 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.

* Single Pulse =10ms

■ ELECTRICAL CHARACTERISTICS (Ta=25℃, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	BV_{CBO}	I_C= 50μA	15			V
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C= 1mA	10			V
Emitter Base Breakdown Voltage	BV_{EBO}	I_E=50μA	10			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=10V, I_E=0			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}= 8V, I_C=0			0.5	μA
DC Current Gain	h_{FE}	V_{CE}= 2V, I_C= 2A	270		820	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C/I_B=3A /0.1A		0.25	0.5	V
Transition Frequency	f_T	V_{CE}=6V, I_E=0.05A, f=100MHz		170		MHz
Output Capacitance	C_{ob}	V_{CB}= 10V, I_E= 0 A, f=1MHz		30		pF

■ CLASSIFICATION OF h_{FE}

RANK	S	E
RANGE	270~560	450~820

■ TYPICAL CHARACTERISTICS