

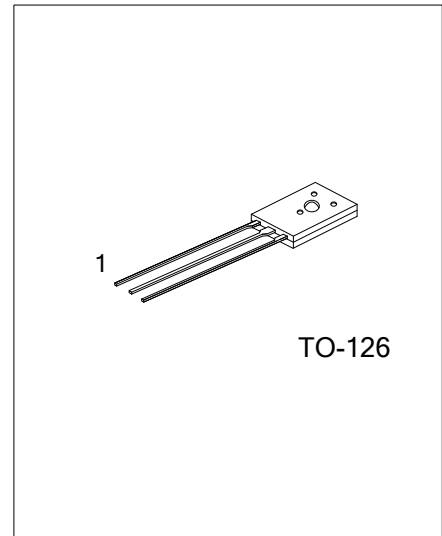


4128D

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

MIDDLING VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR



DESCRIPTION

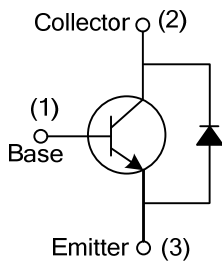
The UTC **4128D** is a middling voltage NPN power transistor. it uses UTC's advanced technology to provide customers with high switching speed and high reliability, etc.

The UTC **4128D** is suitable for commonly power amplifier circuit, electronic ballasts and energy-saving light etc.

FEATURES

- * High switching speed
- * High reliability

SYMBOL



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
4128DL-T60-K	4128DG-T60-K	TO-126	B	C	E	Bulk

Note: Pin Assignment: B: Base C: Collector E: Emitter

<p>4128DL-T60-T</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Lead Free</p>	<p>(1) B: Bulk</p> <p>(2) T60: TO-126</p> <p>(3) L: Lead Free, G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (T_c=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage (V _{BE} =0)	V _{CES}	350	V
Collector-Emitter Voltage (I _B =0)	V _{CEO}	200	V
Emitter-Base Voltage	V _{EBO}	7	V
Collector Current	DC	I _C	5
	Pulse (Note 2)	I _{CP}	10
Base Current	DC	I _B	2
	Pulse (Note 2)	I _{BP}	4
Total Dissipation	P _C	40	W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

Notes: 1. Absolute maximum ratings are stress ratings only and functional device operation is not implied. Absolute maximum ratings are those values beyond which the device could be permanently damaged.
 2. Pulse Test: Pulse Width=5.0ms, Duty Cycle<10%.

■ THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	θ _{JC}	3.125	°C/W

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CBO}	I _C =1mA, I _B =0	350			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =10mA, I _B =0	200			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =1mA, I _C =0	7			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =350V, I _E =0			100	μA
Collector-Emitter Cut-Off Current	I _{CEO}	V _{CE} =200V, I _B =0			50	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =7V, I _C =0			10	μA
Collector-Emitter Saturation Voltage	V _{CE(SAT)1}	I _C =1A, I _B =0.2A			0.8	V
	V _{CE(SAT)2}	I _C =3A, I _B =0.6A			1.5	V
Base-Emitter Saturation Voltage	V _{BE(SAT)}	I _C =3A, I _B =0.6A			1.6	V
DC Current Gain	h _{FE1}	I _C =0.8A, V _{CE} =5V	8		50	
	h _{FE2}	I _C =3A, V _{CE} =5V	8			
Transition Frequency	f _T	I _C =0.5A, V _{CE} =10V	4			MHz
Storage Time	t _S	V _{CC} =24V, I _C =0.5A, I _{B1} =-I _{B2} =0.1A			4	μs
Fall Time	t _F				0.7	μs

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