



BD435

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

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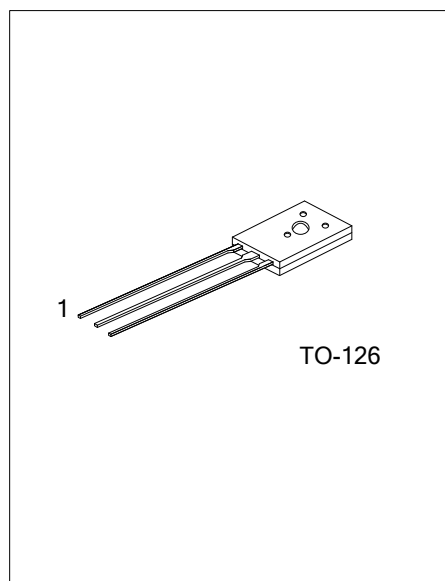
DESCRIPTION

The UTC **BD435** is a NPN epitaxial silicon transistor, it uses UTC's advanced technology to provide the customers with high DC current gain, etc.

The UTC **BD435** is suitable for medium power linear and switching applications.

FEATURES

* High DC current gain



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BD435L-T60-K	BD435G-T60-K	TO-126	B	C	E	Bulk
BD435L-T60-K	BD435G-T60-K	TO-126	B	C	E	Bulk

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

BD435G-T60-K (1) Packing Type (2) Package Type (3) Green Package	(1) K: Bulk (2) T60: TO-126 (3) G: Halogen Free and Lead Free, L: Lead Free
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MARKING

UTC	□□□□	→ Date Code
BD435	□	→ L: Lead Free
	□	→ G: Halogen Free

1

■ **ABSOLUTE MAXIMUM RATINGS** ($T_C=25^{\circ}\text{C}$, unless otherwise noted)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	32	V
Collector-Emitter Voltage	V_{CEO}	32	V
Collector-Emitter Voltage	V_{CES}	32	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	4	A
Collector Current (Pulse) (Note 1)	I_{CP}	7	A
Base Current	I_B	1	A
Collector Dissipation ($T_C=25^{\circ}\text{C}$)	P_C	36	W
Junction Temperature	T_J	+150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

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.

■ **ELECTRICAL CHARACTERISTICS** ($T_C=25^{\circ}\text{C}$, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C=100\text{mA}$, $I_B=0\text{A}$	32			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=32\text{V}$, $I_E=0$			100	μA
Collector Cut-Off Current	I_{CEO}	$V_{CE}=32\text{V}$, $V_{BE}=0$			100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5\text{V}$, $I_C=0$			1	mA
DC Current Gain (Note 1)	h_{FE}	$V_{CE}=5\text{V}$, $I_C=10\text{mA}$	40	130		
		$V_{CE}=1\text{V}$, $I_C=500\text{mA}$	85	140		
		$V_{CE}=1\text{V}$, $I_C=2\text{A}$	50			
Collector-Emitter Saturation Voltage (Note 1)	$V_{CE(SAT)}$	$I_C=2\text{A}$, $I_B=0.2\text{A}$		0.2	0.5	V
Base-Emitter ON Voltage (Note 1)	$V_{BE(ON)}$	$V_{CE}=1\text{V}$, $I_C=2\text{A}$			1.1	V
Current Gain Bandwidth Product	f_T	$V_{CE}=1\text{V}$, $I_C=250\text{mA}$	3			MHz

Note: Pulse Test: $P_W=300\mu\text{s}$, duty Cycle=1.5% Pulsed

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