



BD435

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

NPN EPITAXIAL SILICON TRANSISTOR

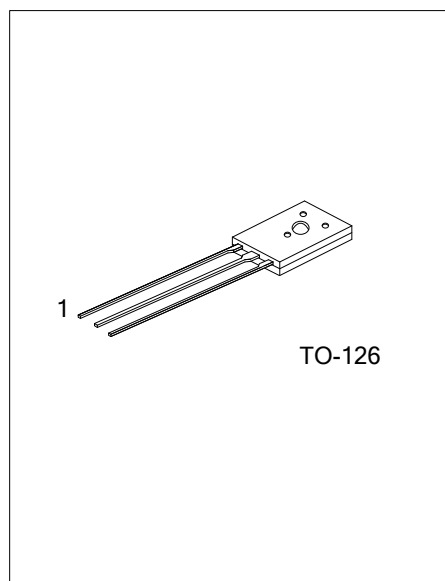
DESCRIPTION

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
--	--

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

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.