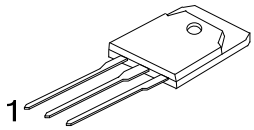
UD3018 Preliminary ***NPN EPITAXIAL SILICON TRANSISTOR***

NPN POWER BIPOLAR TRANSISTORS



TO-3P

■ DESCRIPTION

The UTC **UD3018** is an NPN transistor. it uses UTC's advanced technology to provide customers with high collector-emitter breakdown voltage and high frequency, etc.

The UTC **UD3018** is suitable for professional audio amplifiers and high-end consumer audio products, etc.

■ FEATURES

* High collector-emitter breakdown voltage
* High frequency
* Excellent gain linearity

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UD3018L-T3P-T	UD3018G-T3P-T	TO-3P	B	C	E	Tube

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

UD3018L-T3P-T
- (1)Packing Type
- (2)Package Type
- (3)Halogen Free

(1) T: Tube
(2) T3P: TO-3P
(3) L: Lead Free, G: Halogen Free

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	250	V
Collector-Emitter Voltage	V_{CEO}	250	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector-Emitter Voltage - 1.5V	V_{CEX}	250	V
Continuous Collector Current	I_C	15	A
Peak Collector Current (Note 1)		30	A
Continuous Base Current	I_B	1.5	A
Total Power Dissipation @ T_C=25°C	P_D	150	W
Operating Junction Temperature	T_J	-65~+150	°C
Storage Temperature Range	T_{STG}	-65~+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}	0.83	°C/W

■ ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Emitter Sustaining Voltage	$BV_{CEO(SUS)}$	I_C=30mA, I_B=0	250			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=250V, I_E=0			10	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5.0V, I_C=0			5.0	μA
ON CHARACTERISTICS						
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=5.0A, I_B=0.5A			1.0	V
DC Current Gain	h_{FE}	I_C=0.5A,V_{CE}=5.0V	75		150	
		I_C=1.0A,V_{CE}=5.0V	75		150	
		I_C=3.0A,V_{CE}=5.0V	75		150	
Base-Emitter On Voltage	$V_{BE(on)}$	I_C=5.0A, V_{CE}=5.0V			1.2	V
DYNAMIC CHARACTERISTICS						
Current-Gain-Bandwidth Product	f_T	I_C=1.0A, V_{CE}=5.0V, f_{test}=1.0MHz	30			MHz
Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f_{test}=1.0MHz			400	pF