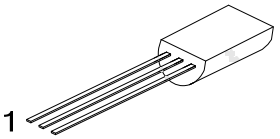
KTD863

NPN SILICON TRANSISTOR

TRIPLE DIFFUSED NPN TRANSISTOR



TO-92NL

■ DESCRIPTION

The UTC **KTD863** is a triple diffused NPN transistor. it uses UTC's advanced technology to provide customers with high collector-emitter breakdown voltage and high collector current capability, etc.

The UTC **KTD863** is suitable for voltage regulator, relay and ramp driver, etc.

■ FEATURES

* High collector-emitter voltage
* High collector current capability

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
KTD863L-x-T9N-B	KTD863G-x-T9N-B	TO-92NL	E	C	B	Tape Box
KTD863L-x-T9N-K	KTD863G-x-T9N-K	TO-92NL	E	C	B	Bulk

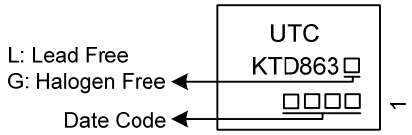
Note: Pin Assignment: E: Emitter C: Collector B: Base

KTD863G-x-T9N-B

(1)Packing Type
(2)Package Type
(3)Rank
(4)Green Package

(1) B: Tape Box, K: Bulk
(2) T9N: TO-92NL
(3) refer to CLASSIFICATION OF h_{FE1}
(4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	60	V
Collector-Emitter Voltage		V_{CEO}	60	V
Emitter-Base Voltage		V_{EBO}	5	V
Continuous Collector Current	DC	I_C	1	A
	Pulse	I_{CP}	2	A
Collector Power Dissipation		P_C	1	W
Junction Temperature		T_J	+150	°C
Storage Temperature Range		T_{STG}	-55 ~ +150	°C

Note: 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.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

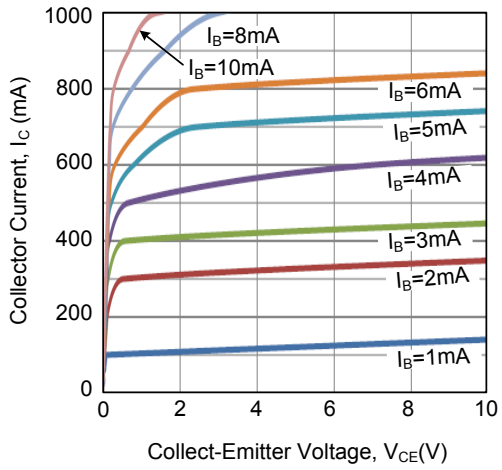
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B=0	60			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=50V, I_E=0			1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=4V, I_C=0			1	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA		0.15	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=500mA, I_B=50mA		0.85	1.2	V
DC Current Gain	h_{FE1}	I_C=50mA,V_{CE}=2V	60		320	
	h_{FE2}	I_C=1A,V_{CE}=2V	30			
Transition Frequency	f_T	I_C=50mA, V_{CE}=10V		150		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz, I_E=0		12		pF

■ CLASSIFICATION OF hFE1

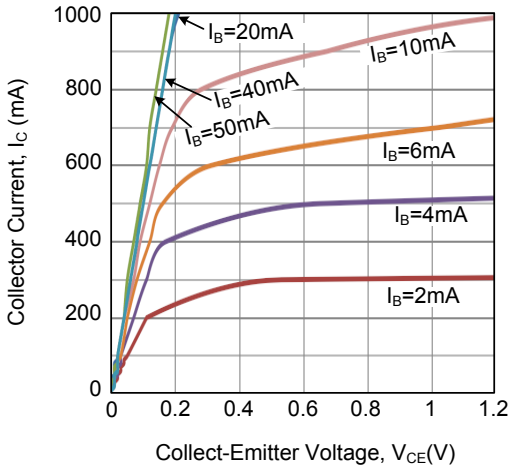
RANK	O	Y	GR
RANGE	60~120	100~200	160~320

■ TYPICAL CHARACTERISTICS

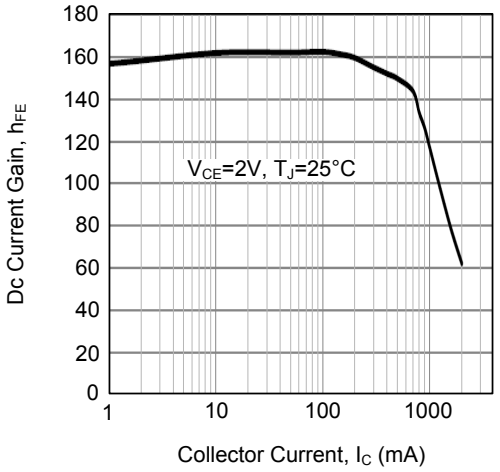
Static Characteristic



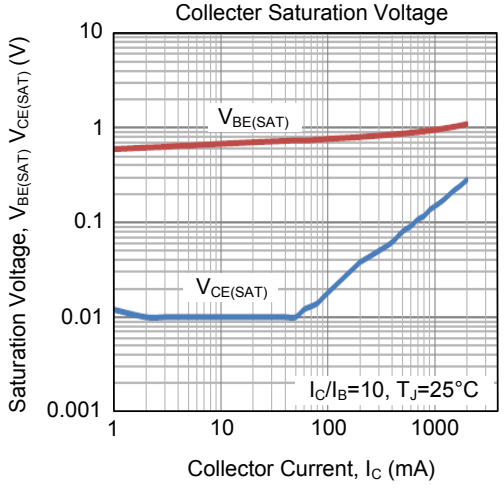
Static Characteristic



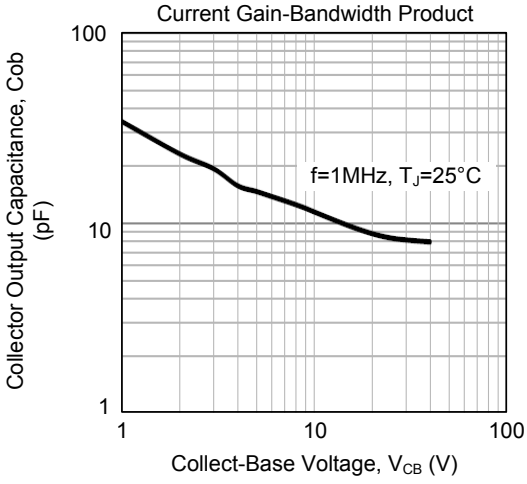
Dc Current Gain



Base-Emitter Saturation Voltage
Collecter Saturation Voltage



Current Gain-Bandwidth Product



Power Dissipation vs. Junction Temperature