



KTD863

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

TRIPLE DIFFUSED NPN TRANSISTOR

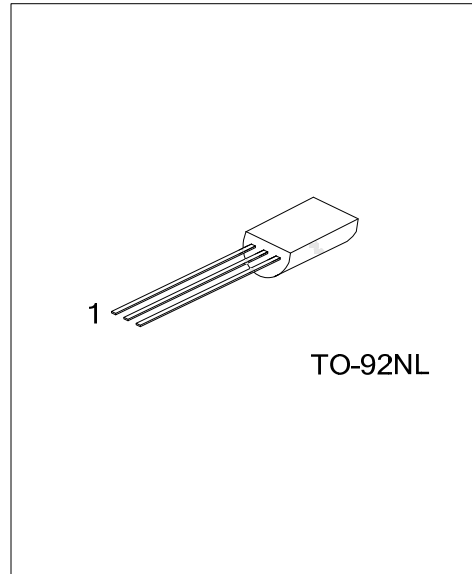
■ DESCRIPTION

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

<p>KTD863L-x-T9N-B</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Lead Free</p>	<p>(1) B: Tape Box, K: Bulk (2) T9N: TO-92NL (3) refer to CLASSIFICATION OF h_{FE1} (4) L: Lead Free, G: Halogen Free</p>
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■ MARKING INFORMATION

PACKAGE	MARKING
TO-92NL	<p>UTC KTD863 □ □□□ □</p> <p>L: Lead Free G: Halogen Free Data Code</p>

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature Range		T_{STG}	-55~+150	$^\circ\text{C}$

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 ($T_A=25^\circ\text{C}$)

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

■ CLASSIFICATION OF h_{FE1}

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

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