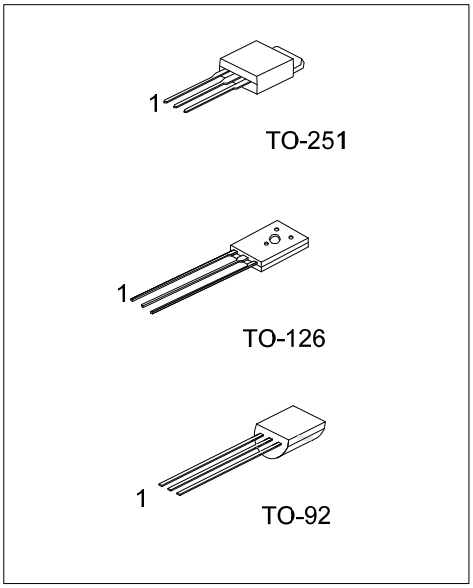
UT2274

NPN SILICON TRANSISTOR

SWITCHING REGULATOR APPLICATIONS



■ FEATURES

* High breakdown voltage (V_{CBO}≥1400V).
* Ultra high-speed switching.
* Wide SOA.

■ ORDERING INFORMATION

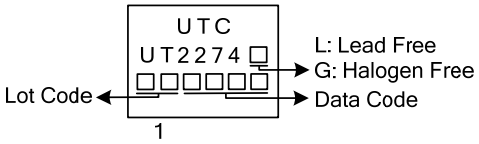
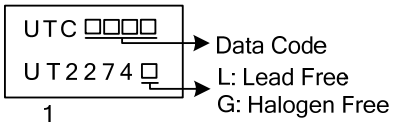
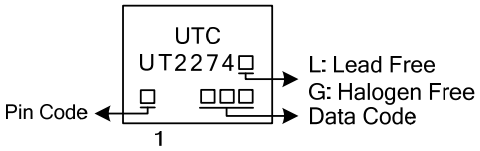
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UT2274L-TM3-T	UT2274G-TM3-T	TO-251	B	C	E	Tube
UT2274L-T60-K	UT2274G-T60-K	TO-126	B	C	E	Bulk
UT2274L-T92-B	UT2274G-T92-B	TO-92	B	C	E	Tape Box
UT2274L-T92-K	UT2274G-T92-K	TO-92	B	C	E	Bulk
UT2274L-T92-A-B	UT2274G-T92-A-B	TO-92	E	C	B	Tape Box
UT2274L-T92-A-K	UT2274G-T92-A-K	TO-92	E	C	B	Bulk

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

UT2274L-T92-x-B

(1) Packing Type	(1) B: Tape Box, K: Bulk, T: Tube
(2)Pin Assignment	(2) refer to Pin Assignment
(3) Package Type	(3) T92: TO-92, TM3: TO-251, T60: TO-126
(4) Green Package	(4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

PACKAGE	MARKING
TO-251	
TO-126	
TO-92	

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	1400	V
Collector-Emitter Voltage		V_{CEO}	720	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	1	A
	Pulse (Note 2)	I_{CP}	2	A
Collector Dissipation	TO-251	P_C	1	W
	TO-92		625	mW
	TO-126		875	
Junction Temperature		T_J	150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Notes: 1. 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.
2. $P_W \leq 300\mu s$, duty cycle$\leq$10%

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=1 mA, I_E =0A	1400			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=5 mA, R_{BE} =∞	720			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E =1 mA, I_C =0A	5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=800 V, I_E =0A			10	μA
Collector Cut-off Current	I_{CES}	V_{CE}=1400 V, R_{BE} =0Ω			1	mA
Emitter Cut-off Current	I_{EBO}	V_{EB}=4V, I_C =0A			1	mA
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=0.25 A, I_B=0.05 A			1.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C=0.5 A, I_B=0.1 A			1.5	V
DC Current Gain	h_{FE1}	V_{CE} =5V, I_C=0.1 A	15		35	
	h_{FE2}	V_{CE} =5V, I_C=0.5 A	4			
Storage Time	t_{STG}	V_{CC}=200V, R_L=400Ω		1.5	3.0	μs
Fall Time	t_F	I_C=0.5A,I_{B1}=0.1A,I_{B2}=-0.25A,		0.25	0.4	μs

■ SWITCHING TIME TEST CIRCUIT