2N3772

SILICON NPN TRANSISTOR

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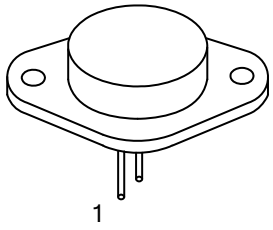

TO-3

■ DESCRIPTION

The UTC **2N3772** is a silicon power transistor in TO-3 metal case. It is designed for linear amplifiers, series pass regulators, and inductive switching applications.

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2N3772L-T30-Y	2N3772G-T30-Y	TO-3	B	E	C	Tray

2N2955L-T30-Y (1)Packing Type (2)Package Type (3)Lead Free	(1) Y: Tray (2) T30: TO-3 (3) G: Halogen Free, L: Lead Free

■ ABSOLUTE MAXIMUM RATING (T_A=25℃, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector-Emitter Voltage	V_{CEV}	80	V
Collector Current	I_C	30	A
Collector Peak Current (Note 1)	I_{CM}	30	A
Base Current	I_B	5	A
Base Peak Current (Note 1)	I_{BM}	15	A
Power Dissipation (T_A=25℃)	P_D	150	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55 ~ +150	℃

Note 1. Pulse Test: P_W<=300μs, Duty Cycle<=2%

2. 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_A=25℃, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Emitter Sustaining Voltage	$V_{CEX(SUS)}$	I_C=0.2A,$V_{BE(OFF)}$=1.5V,R_{BE}=100Ω	80			V
Collector-Emitter Sustaining Voltage	$V_{CER(SUS)}$	I_C=0.2A, R_{BE}=100Ω	70			V
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	I_C=0.2A, I_B=0	60			V
Collector Cut-off Current	I_{CEO}	V_{CE}=50V,I_B=0			10	mA
Collector Cut-off Current	I_{CEX}	V_{CE}=100V, $V_{BE(OFF)}$=1.5V.			5	mA
		V_{CE}=30V, $V_{BE(OFF)}$=1.5V, T_A=150℃			10	
Collector Cut-off Current	I_{CBO}	V_{CE}=50V, I_E=0			5	mA
Emitter Cut-off Current	I_{EBO}	V_{BE}=7V, I_C=0			5	mA
ON CHARACTERISTICS						
DC Current Gain (Note)	h_{FE}	I_C=10A,V_{CE}=4V	15		60	
		I_C=20A, V_{CE}=4V	5			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=10A, I_B=1.5A			1.4	V
		I_C=20A, I_B=4A			4.0	
Base-Emitter On Voltage	$V_{BE(ON)}$	I_C=10A, V_{CE}=4V			2.2	V
SECOND BREAKDOWN						
Second Breakdown Collector with Base Forward Biased	I_S/b	V_{CE}=60V, T=1.0s, Non-repetitive	2.5			A
DYNAMIC CHARACTERISTICS						
Current Gain-Bandwidth Product	f_T	I_C=1A, V_{CE}=4V, f=50kHz	0.2			MHz
Small-Signal Current Gain	h_{FE}	I_C=1A, V_{CE}=4V, f=1kHz	40			

Note: Pulse Test: P_W<=300μs, Duty Cycle<=2%