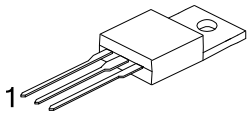
2SC2073

Preliminary ***NPN EPITAXIAL SILICON TRANSISTOR***

NPN SILICON POWER TRANSISTORS



TO-220

■ DESCRIPTION

The UTC **2SC2073** is an NPN silicon power transistors, it uses UTC's advanced technology to provide customers with high collector base voltage, etc.

The UTC **2SC2073** is suitable for general purpose Power amplifier, vertical output application.

■ FEATURES

* High collector base voltage

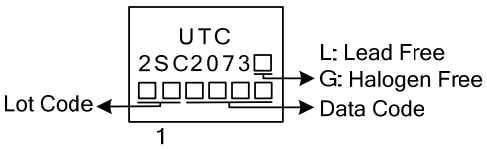
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC2073L- TA3-T	2SC2073G-TA3-T	TO-220	B	C	E	Tube

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

2SC2073L-TA3-T (1)Packing Type (2)Package Type (3)Lead Free	(1) T: Tube (2) TA3: TO-220 (3) L: Lead Free, G: Halogen Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	150	V
Collector-Emitter Voltage		V_{CEO}	150	V
Emitter-Base Voltage		V_{EBO}	5.0	V
Collector Current	Continuous	I_C	1.5	A
	Peak	I_{CM}	3.0	A
Base Current		I_B	0.5	A
Total Power Dissipation @ T_C=25°C		P_D	25	W
Derate above 25°C			0.2	W/°C
Junction Temperature		T_J	-55~+150	°C
Storage Temperature		T_{STG}	-55~+150	°C

Notes: 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.

■ THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Junction-to-Case	θ_{JC}	5.0	°C/W

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=1.0mA, I_B=0	150			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=5.0mA, I_B=0	150			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_B=1.0mA, I_C=0	5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=120V, I_E=0			10	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5.0V, I_C=0			10	μA
ON CHARACTERISTICS (Note 1)						
DC Current Gain	h_{FE}	V_{CE}=10V, I_C=0.5A	40		140	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=0.5A, I_B=50mA			1.5	V
Base-Emitter On Voltage	$V_{BE(ON)}$	I_C=500mA, V_{CE}=10V	0.65		0.85	V
DYNAMIC CHARACTERISTICS						
Current-Gain -Bandwidth Product	f_T	I_C=0.5A,V_{CE}=10V, f=1.0MHz	4.0			MHz

Notes: Pulse Test: Pulse Width=300μs, Duty Cycle≤2.0%.