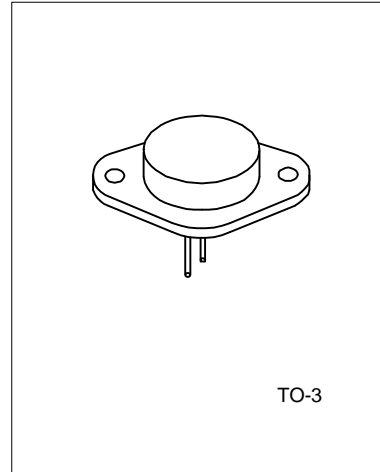


## UTC2N3055

## SILICON NPN TRANSISTOR

### SILICON NPN TRANSISTORS

The UTC 2N3055 is a silicon NPN transistor in TO-3 metal case. It is intended for power switching circuits, series and shunt regulators, output stages and high fidelity amplifiers.



### ABSOLUTE MAXIMUM RATINGS ( Ta=25°C ,unless otherwise specified )

PARAMETERS	SYMBOL	VALUE	UNITS
Collector-Base Voltage	VCBO	100	V
Collector-Emitter Voltage	VCEO	60	V
Emitter-Base Voltage	VEBO	7	V
Collector-Emitter Voltage	VCEV	70	V
Collector Current	Ic	15	A
Collector Peak Current(1)	ICM	15	A
Base Current	IB	7	A
Base Peak Current(1)	IBM	15	A
Total Dissipation at Ta=25°C	Ptot	115	W
Storage Temperature	TSTG	-65 to 200	°C
Max. Operating Junction Temperature	Tj	200	°C

### ELECTRICAL CHARACTERISTICS(Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
<b>OFF CHARACTERISTICS</b>						
Collector-Emitter Sustaining Voltage	VCEO(sus)	Ic=200mA, IB=0V	60			V
Collector-Emitter Sustaining Voltage	VCER(sus)	Ic=0.2 A, RBE=100 Ohms	70			V
Collector Cut-off Current	ICEO	VCE=30V, IB=0			0.7	mA
Collector Cut-off Current	ICEX	VCE=100V, VBE(off)=1.5V, VCE=100V, VBE(off)=1.5V, Ta=150°C			1.0 5.0	mA
Emitter Cut-off Current	IEBO	VBE=7V, IC=0			5.0	mA
<b>ON CHARACTERISTICS</b>						
DC Current Gain(note)	hFE	Ic=4A, VCE=4V, Ic=10A, VCE=4V	20 5		70	
Collector-Emitter Saturation Voltage	VCE(sat)	Ic=4A, IB=400mA Ic=10A, IB=3.3A			1.1 3.0	V



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PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Base-Emitter On Voltage	V <sub>BE(on)</sub>	I <sub>c</sub> =4A, V <sub>CE</sub> =4V			1.5	V
SECOND BREAKDOWN						
Second Breakdown Collector with Base Forward Biased	I <sub>s/b</sub>	V <sub>CE</sub> =60V, T=1.0s, Non-repetitive	2.87			A
DYNAMIC CHARACTERISTICS						
Current Gain-Bandwidth Product	f <sub>T</sub>	I <sub>c</sub> =0.5A, V <sub>CE</sub> =10V, f=1MHz	2.5			MHz
Small-Signal Current Gain	h <sub>FE</sub>	I <sub>c</sub> =1A, V <sub>CE</sub> =4V, f=1kHz	15		120	
Small-Signal Current Gain Cut-off Frequency	f <sub>HFE</sub>	I <sub>c</sub> =1A, V <sub>CE</sub> =4V F=1.0kHz	10			kHz

Note(1): Pulse Test: Puls Width<=300μs, Duty Cycle<=2%