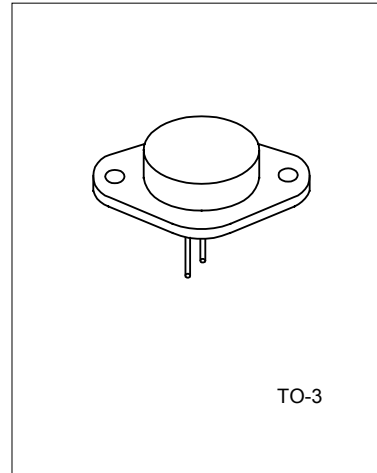


SILICON NPN TRANSISTORS

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	V _{CB0}	100	V
Collector-Emitter Voltage	V _{CE0}	60	V
Emitter-Base Voltage	V _{EB0}	7	V
Collector-Emitter Voltage	V _{CEV}	70	V
Collector Current	I _c	15	A
Collector Peak Current(1)	I _{CM}	15	A
Base Current	I _B	7	A
Base Peak Current(1)	I _{BM}	15	A
Total Dissipation at Ta=25°C	P _{tot}	115	W
Storage Temperature	T _{STG}	-65 to 200	°C
Max. Operating Junction Temperature	T _J	200	°C

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Emitter Sustaining Voltage	V _{CE0(sus)}	I _c =200mA, I _B =0V	60			V
Collector-Emitter Sustaining Voltage	V _{CER(sus)}	I _c =0.2 A, R _{BE} =100 Ohms	70			V
Collector Cut-off Current	I _{CEO}	V _{CE} =30V, I _B =0			0.7	mA
Collector Cut-off Current	I _{CEx}	V _{CE} =100V, V _{BE(off)} =1.5V. V _{CE} =100V, V _{BE(off)} =1.5V, Ta=150°C			1.0 5.0	mA
Emitter Cut-off Current	I _{EBO}	V _{BE} =7V, I _C =0			5.0	mA
ON CHARACTERISTICS						
DC Current Gain(note)	h _{FE}	I _c =4A, V _{CE} =4V, I _c =10A, V _{CE} =4V	20 5		70	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c =4A, I _B =400mA I _c =10A, I _B =3.3A			1.1 3.0	V

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SILICON NPN TRANSISTOR

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

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

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