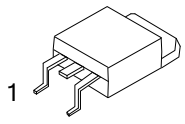
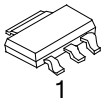
UP1753

NPN SILICON TRANSISTOR

HIGH CURRENT LOW $V_{CE(SAT)}$ TRANSISTOR



TO-252



SOT-223

■ DESCRIPTION

The UTC **UP1753** is specially designed to have high current and low $V_{CE(SAT)}$ to suit for power amplifier application and power switching application.

■ FEATURES

*$V_{CE(SAT)}$ typ is below 300mV at 5A
* Max continuous current 6 A
* BV_{CEO} is 100V minimum

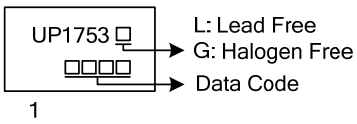
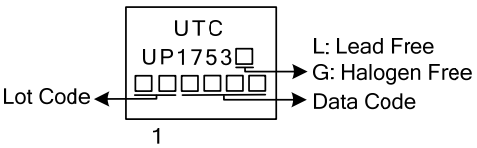
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UP1753L-AA3-R	UP1753G-AA3-R	SOT-223	B	C	E	Tape Reel
UP1753L-TN3-T	UP1753G-TN3-T	TO-252	B	C	E	Tube
UP1753L-TN3-R	UP1753G- TN3-R	TO-252	B	C	E	Tape Reel

UP1753L-AA3-T
(1)Packing Type
(2)Package Type
(3)Lead Free

(1) T: Tube, R: Tape Reel
(2) AA3: SOT-223, TN3: TO-252
(3) L: Lead Free, G: Halogen Free

■ MARKING INFORMATION

PACKAGE	MARKING
SOT-223	
TO-252	

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	200	V
Collector-Emitter Voltage		V_{CEO}	100	V
Emitter-Base Voltage		V_{EBO}	6	V
Peak Pulse Current		I_{CM}	10	A
Continuous Collector Current		I_C	6	A
Power Dissipation (T_A =25°C)	SOT-223	P_D	0.8	W
	TO-252		1	W
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Note: 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.

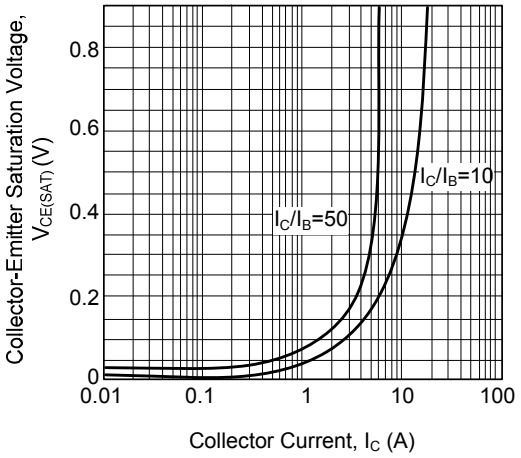
■ ELECTRICAL CHARACTERISTICS (T_A= 25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA	200	300		V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA (Note1)	100	120		V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=100μA	6	8		V
Collector Cut-Off Current	I_{CBO}	V_{CB}=150V			10	nA
Collector Cut-Off Current	I_{CER}	V_{CE}=150V, R≤1KΩ			10	nA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=6V			10	nA
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=0.1A, I_B=5mA (Note1)			50	mV
		I_C=2A, I_B=100mA (Note1)			150	
		I_C=5A, I_B=500mA (Note1)			330	
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C=5A, I_B=500mA (Note1)			1250	mV
Base-Emitter Turn-On Voltage	$V_{BE(ON)}$	I_C=5A, V_{CE} =2V (Note1)			1100	mV
Static Forward Current Transfer Ratio	h_{FE}	I_C=10mA, V_{CE} =2V	100	200		
		I_C=2A, V_{CE} =2V (Note1)	100	200	300	
		I_C=4A, V_{CE} =2V (Note1)	50	100		
		I_C=10A, V_{CE} =2V (Note1)	20			
Transition Frequency	f_T	I_C=100mA, V_{CE} =10V f=50MHz		100		MHz
Output Capacitance	C_{OB}	V_{CB}=10V, f=1MHz		38		pF
Switching Times	t_{ON}	I_C=1A, V_{CC} =10V		50		ns
	t_{OFF}	I_{B1}=I_{B2}=100mA		1600		ns

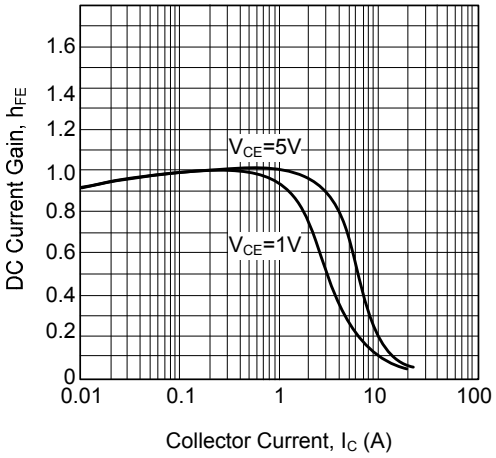
Note: 1.Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%,

■ TYPICAL CHARACTERISTICS

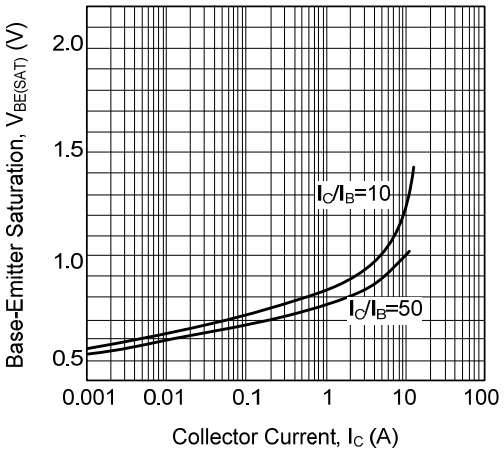
Collector-Emitter Saturation Voltage vs. Collector Current



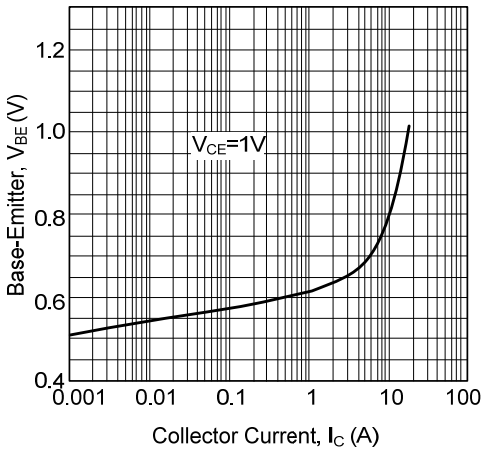
DC Current Gain vs. Collector Current



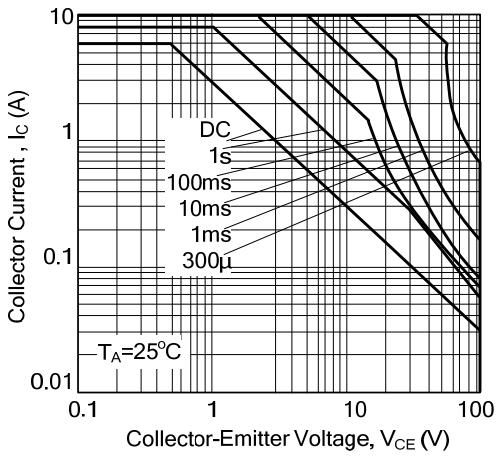
Base-Emitter Saturation vs. Collector Current



Base-Emitter Turn-On Voltage vs. Collector Current



Safe Operating Area



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Bipolar Transistors - BJT ***category:***

Click to view products by Unisonic ***manufacturer:***

Other Similar products are found below :

619691C MCH4017-TL-H MJ15024/WS MJ15025/WS BC546/116 BC556/FSC BC557/116 BSW67A HN7G01FU-A(T5L,F,T NJVMJD148T4G NSVMMBT6520LT1G NTE187A NTE195A NTE2302 NTE2330 NTE2353 NTE316 IMX9T110 NTE63 NTE65 C4460 SBC846BLT3G 2SA1419T-TD-H 2SA1721-O(TE85L,F) 2SA1727TLP 2SA2126-E 2SB1202T-TL-E 2SB1204S-TL-E 2SC5488A-TL-H 2SD2150T100R SP000011176 FMC5AT148 2N2369ADCSM 2SB1202S-TL-E 2SC2412KT146S 2SC4618TLN 2SC5490A-TL-H 2SD1816S-TL-E 2SD1816T-TL-E CMXT2207 TR CPH6501-TL-E MCH4021-TL-E BC557B TTC012(Q) BULD128DT4 JANTX2N3810 Jantx2N5416 US6T6TR KSF350 068071B