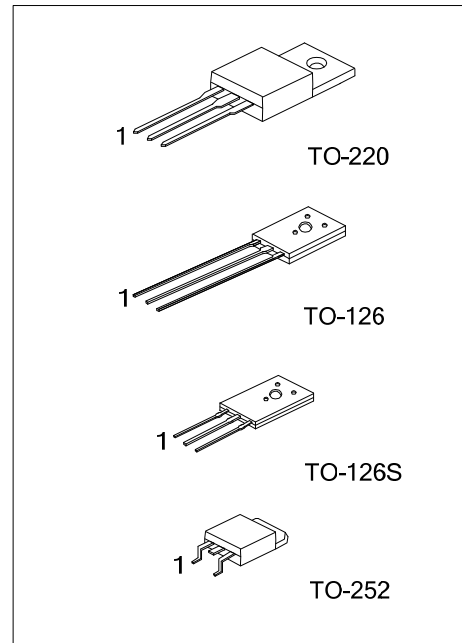


**TIP32C****PNP SILICON TRANSISTOR****PNP EXPITAXIAL PLANAR TRANSISTOR****DESCRIPTION**

The UTC **TIP32C** is a PNP epitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

FEATURES

* Complement to TIP31C

**ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TIP32CL-TA3-T	TIP32CG-TA3-T	TO-220	B	C	E	Tube
TIP32CL-T60-K	TIP32CG-T60-K	TO-126	B	C	E	Bulk
TIP32CL-T60-A-K	TIP32CG-T60-A-K	TO-126	E	C	B	Bulk
TIP32CL-T6S-K	TIP32CG-T6S-K	TO-126S	B	C	E	Bulk
TIP32CL-TN3-R	TIP32CG-TN3-R	TO-252	B	C	E	Tape Reel

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

TIP32CG-T60-A-K (1) Packing Type (2) Pin Assignment (3) Package Type (4) Green Package	(1) T: Tube, K: Bulk, R: Tape Reel (2) Refer to Pin Assignment (3) TA3: TO-220, T60: TO-126, T6S: TO-126S TN3: TO-252 (4) G: Halogen Free and Lead Free, L: Lead Free
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MARKING

TO-220 / TO-252	TO-126 / TO-126S
UTC TIP32C Lot Code Date Code L: Lead Free G: Halogen Free	UTC TIP32C Date Code L: Lead Free G: Halogen Free

■ **ABSOLUTE MAXIMUM RATINGS** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CB0}	-100	V
Emitter-Base Voltage		V_{EB0}	-5	V
Collector Current	DC	I_C	-3	A
	Pulse	I_{CM}	-5	A
Base Current		I_B	-1	A
Power Dissipation	TO-220	P_D	2	W
	TO-126/TO-126S		0.9	W
	TO-252		1.25	W
Junction Temperature		T_J	+150	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-40 ~ +150	$^{\circ}\text{C}$

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.

■ **THERMAL DATA**

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220	θ_{JA}	62.5	$^{\circ}\text{C/W}$
	TO-126/TO-126S		138.9	$^{\circ}\text{C/W}$
	TO-252		100	$^{\circ}\text{C/W}$

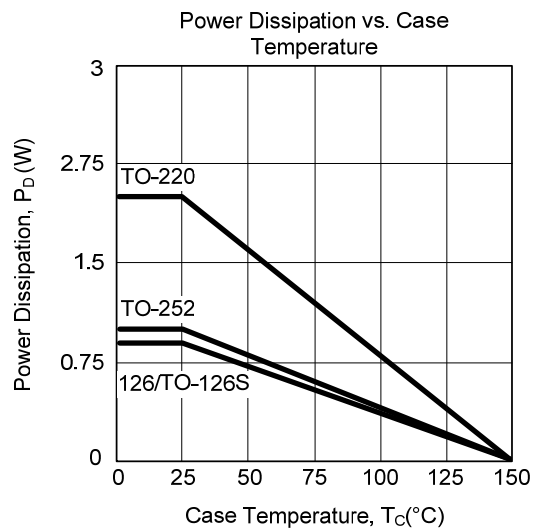
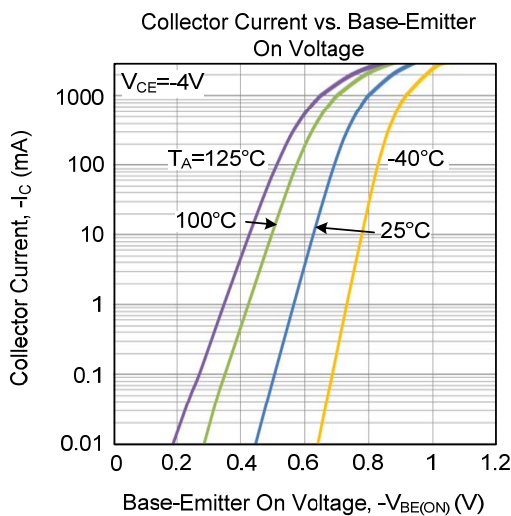
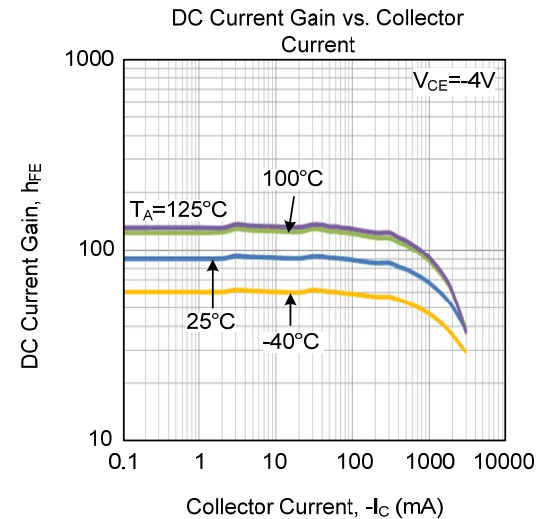
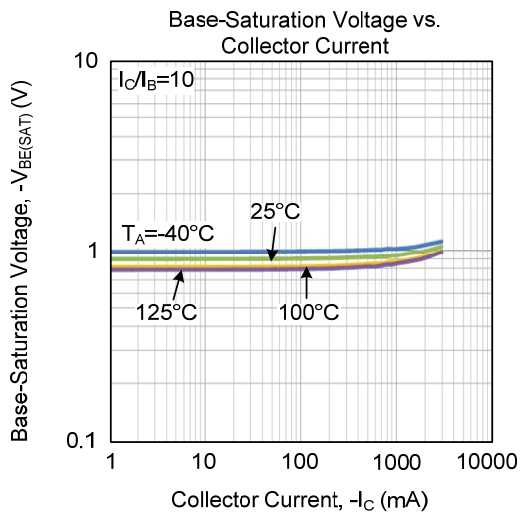
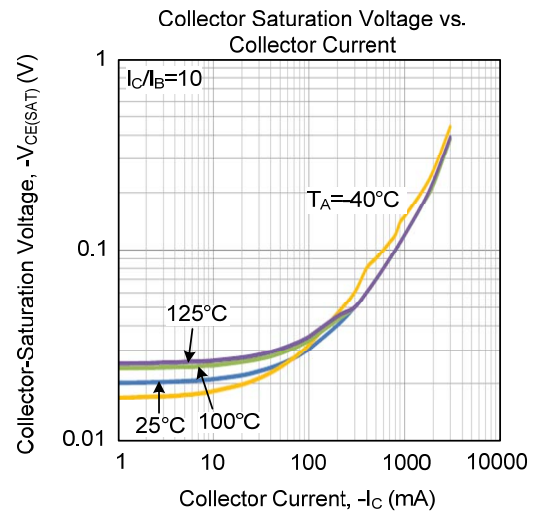
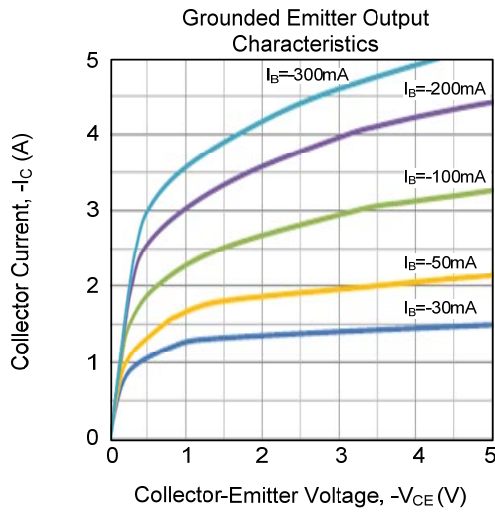
Note: Device mounted on FR-4 substrate P_c board, 2oz copper, with 1inch square copper plate.

■ **ELECTRICAL CHARACTERISTICS** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

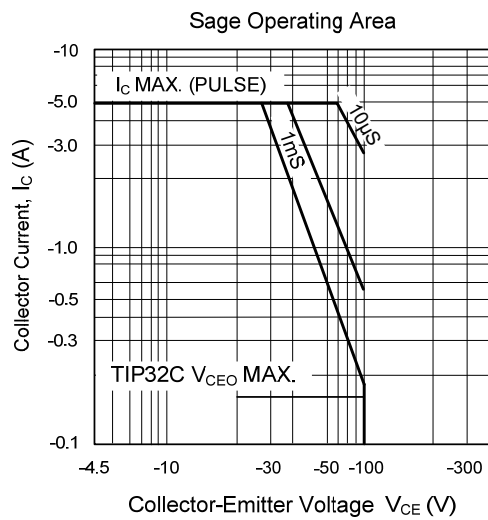
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining Voltage (Note)	BV_{CEO}	$I_C=-30\text{mA}, I_B=0$	-100			V
Collector Cutoff Current	I_{CES}	$V_{CE}=-100\text{V}, V_{BE}=0$			-20	μA
Collector Cutoff Current	I_{CEO}	$V_{CE}=-60\text{V}, I_B=0$			-50	μA
Emitter Cutoff current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			-1	mA
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	$I_C=-3\text{A}, I_B=-375\text{mA}$			-1.2	V
Base-Emitter On Voltage	$V_{BE(ON)}$	$I_C=-3\text{A}, V_{CE}=-4\text{A}$			-1.8	V
DC Current Gain (Note)	h_{FE}	$I_C=-1\text{A}, V_{CE}=-4\text{V}$	25			
		$I_C=-3\text{A}, V_{CE}=-4\text{V}$	10		50	
Current Gain Bandwidth Product	f_T	$I_C=-0.5\text{A}, V_{CE}=-10\text{V}, f=1\text{MHz}$	3			MHz

Note: Pulse Test: $P_W \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS



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