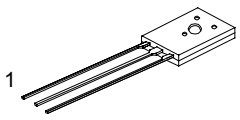
UTC 2SD1609 NPN EPITAXIAL SILICON TRANSISTOR

NPN EPITAXIAL PLANAR TRANSISTOR

FEATURES

* Low frequency high voltage amplifier



TO-126

1:EMITTER 2:COLLECTOR 3:BASE

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

PARAMETER	SYMBOL	MIN	MAX	UNIT
Collector-Base Voltage	BV_{CBO}		160	V
Collector-Emitter Voltage	BV_{CEO}		160	V
Emitter-Base Voltage	BV_{EBO}		5	V
Collector Current	Ic		100	mA
Total Power Dissipation (T_a=25°C)	Ptot		1.25	W
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}	-50	150	°C

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

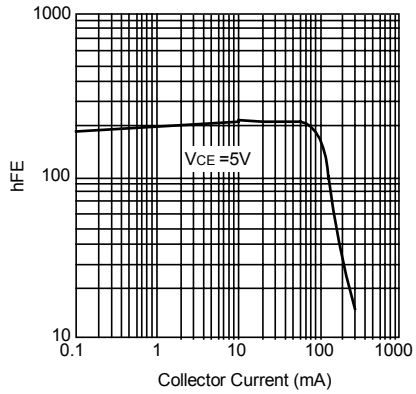
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Voltage	BV_{CBO}	I_C=10μA	160			V
Collector-Emitter Voltage	BV_{CEO}	I_C=1mA	160			V
Emitter-Base Voltage	BV_{EBO}	I_E=10μA	5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=140V			10	μA
DC Current Gain	h_{FE1}	V_{CE}=5V, Ic=10mA	60		320	
	h_{FE2}	V_{CE}=5V, Ic=1mA	30			
Collector-Emitter Saturation Voltage	V_{CE}(sat)	Ic=30mA, I_B=3mA			2	V
Base-Emitter On Voltage	$V_{BE(on)}$	V_{CE}=5V, Ic=10mA			1.5	V
Current Gain Bandwidth Product	f_T	V_{CE}=5V,Ic=10mA	145			MHz
Output Capacitance	Cob	V_{CB}=10V, f=1MHz		3.8		pF

CLASSIFICATION OF h_{FE1}

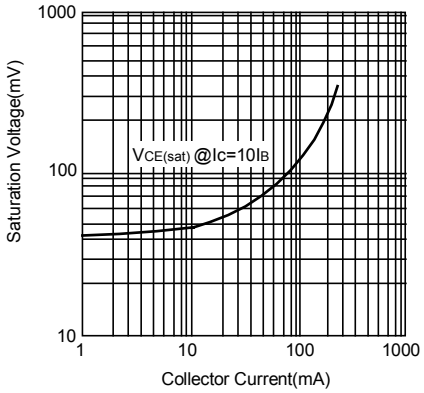
RANK	B	C	D
RANGE	60-120	100-200	160-320

CHARACTERISTICS CURVE

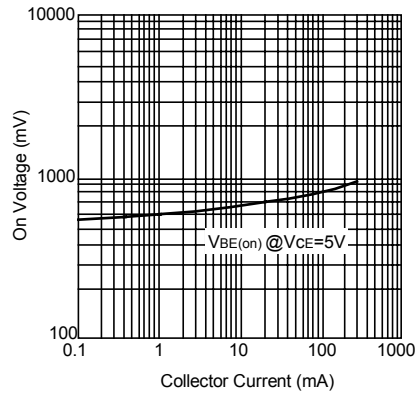
Current Gain & Collector Current



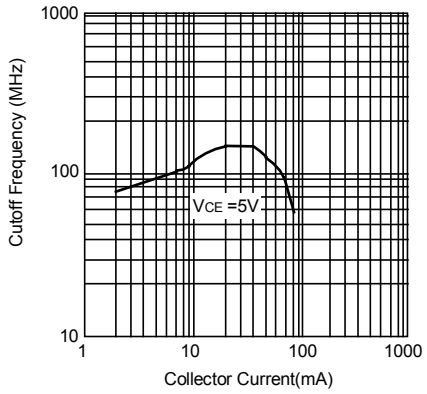
Saturation Voltage &Collector Current



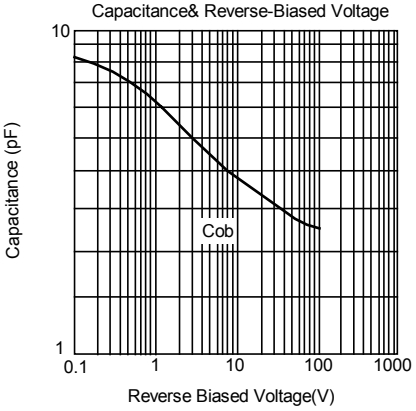
On Voltage & Collector Current



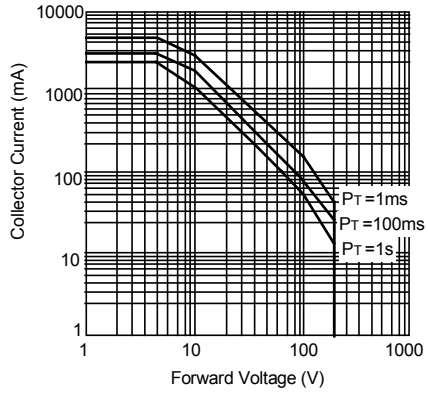
Cutoff Frequency &Collector Current



Capacitance& Reverse-Biased Voltage



Safe Operating Area



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