



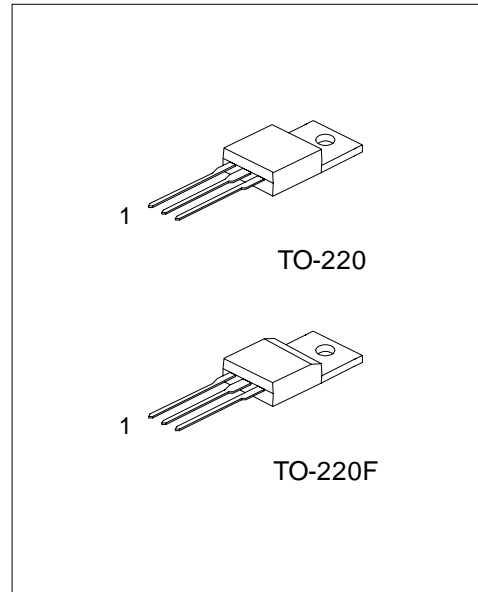
2SC5027E

NPN SILICON TRANSISTOR

HIGH VOLTAGE AND HIGH RELIABILITY TRANSISTOR

■ FEATURES

- * High Speed Switching
- * Wide SOA



*Pb-free plating product number: 2SC5027EL

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
2SC5027E-x-TA3-T	2SC5027EL-x-TA3-T	TO-220	B	C	E	Tube
2SC5027E-x-TF3-T	2SC5027EL-x-TF3-T	TO-220F	B	C	E	Tube

<p>2SC5027EL-x-TA3-T</p>	<p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Rank</p> <p>(4) Lead Plating</p>	<p>(1) T: Tube</p> <p>(2) TA3: TO-220, TF3: TO-220F</p> <p>(3) x: refer to Classification of h_{FE1}</p> <p>(4) L: Lead Free Plating, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATINGS (T_c = 25 °C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V _{CBO}	750	V
Collector-Emitter Voltage	V _{CEO}	700	V
Collector-Emitter Voltage	V _{EBO}	7	V
Peak Collector Current	I _C	3	A
Collector Current (Pulse)	I _{CP}	10	A
Base Current	I _B	1.5	A
Power Dissipation	P _D	50	W
Junction Temperature	T _J	150	
Storage Temperature	T _{STG}	-40 ~ +150	

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.

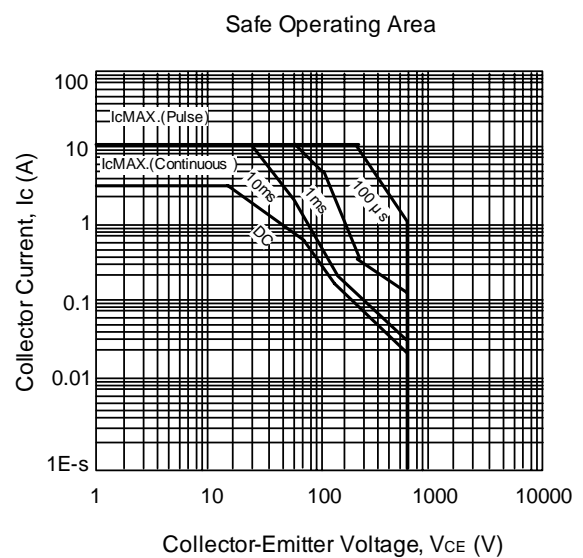
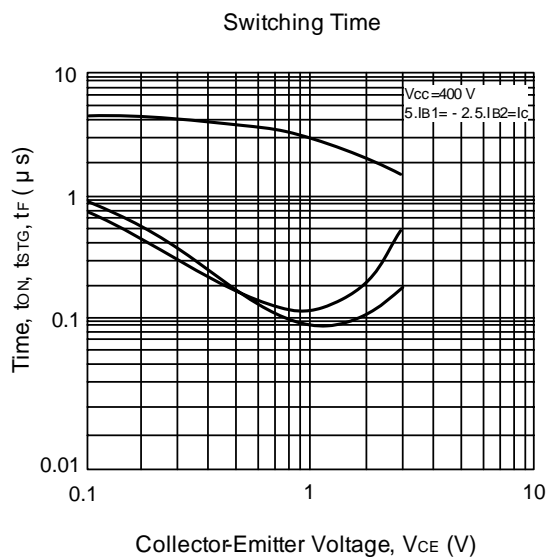
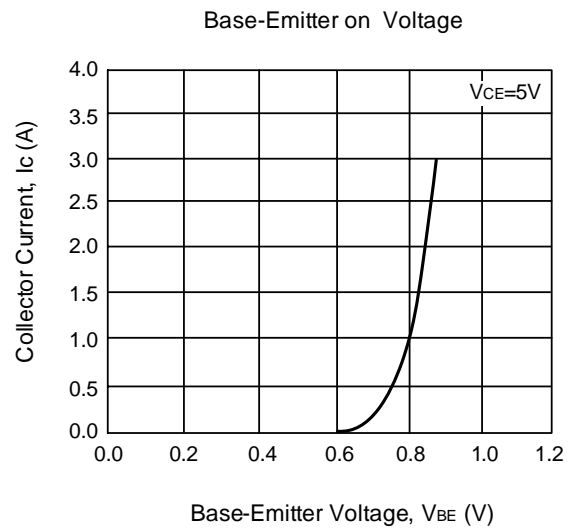
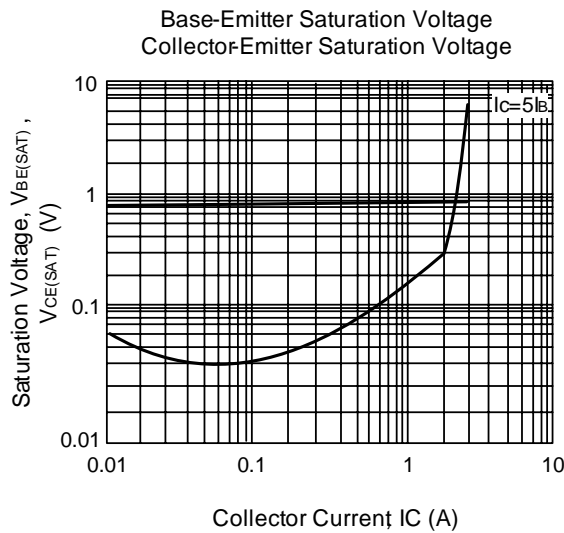
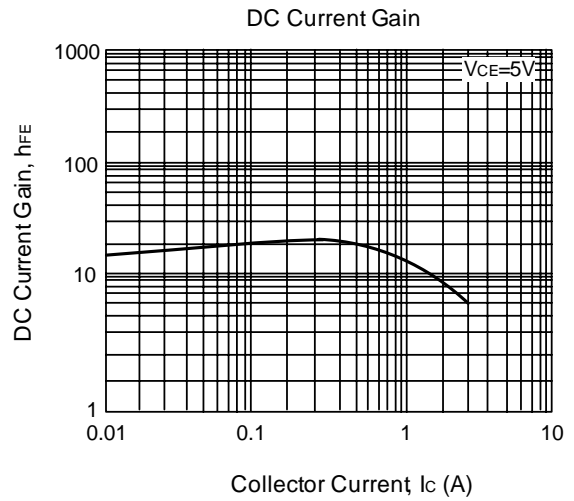
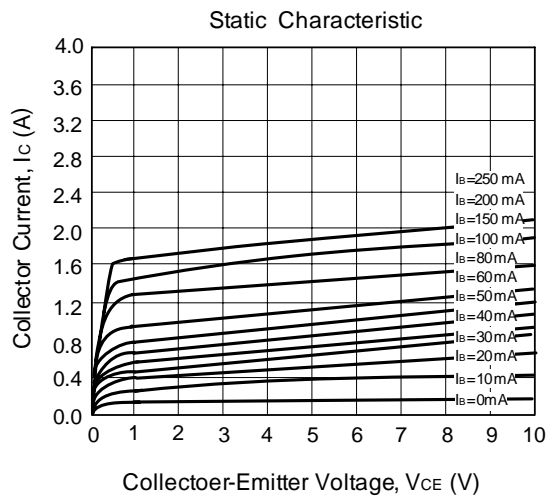
■ ELECTRICAL CHARACTERISTICS (T_c = 25 °C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CBO}	I _C =1mA, I _E =0	750			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =5mA, I _B =0	700			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =1mA, I _C =0	7			V
Collector-Emitter sustaining Voltage	V _{CEO(SUS)}	I _C =1.5A, I _{B1} = -I _{B2} =0.3A L=2mH, Clamped	700			V
Collector Cut-off Current	I _{CBO}	V _{CB} =750V, I _E =0			10	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} =5V, I _C =0			10	μA
DC Current Gain	h _{FE1}	V _{CE} =5V, I _C =0.2A	10		40	
	h _{FE2}	V _{CE} =5V, I _C =1A	8			
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C =1.5A, I _B =0.3A			2	V
Base-Emitter Saturation Voltage	V _{BE(SAT)}	I _C =1.5A, I _B =0.3A			1.5	V
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz, I _E =0		60		pF
Current Gain Bandwidth Product	f _T	V _{CE} =10V, I _C =0.2A		15		MHz
Turn ON Time	t _{ON}	V _{CC} =400V			0.5	μs
Storage Time	t _S	I _C =5I _{B1} = -2.5I _{B2} =2A			3	μs
Fall Time	t _F	R _L =200			0.3	μs

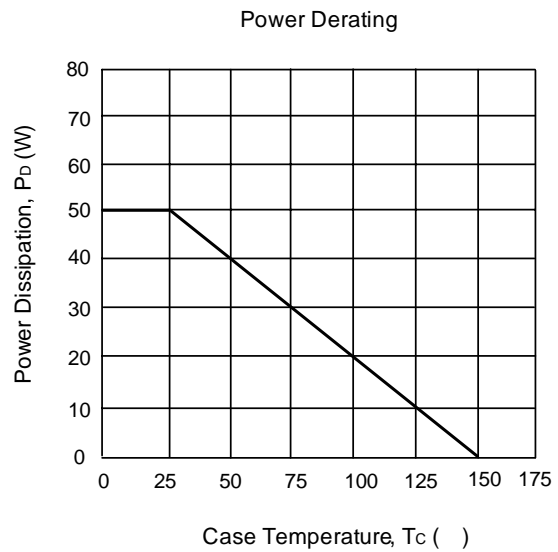
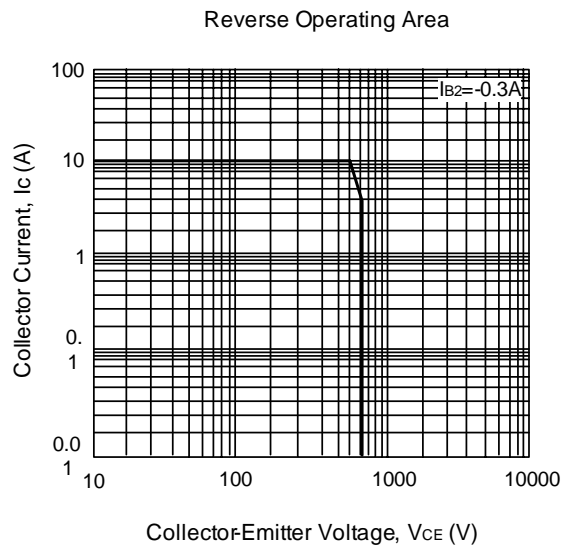
■ CLASSIFICATION of h_{FE1}

CLASSIFICATION	N	R	O
RANGE	10 ~ 20	15 ~ 30	20 ~ 40

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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