

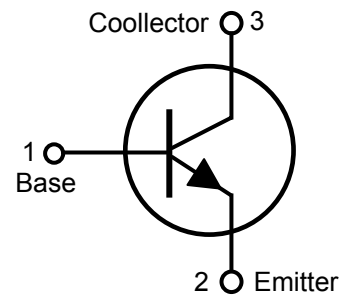
■ PRODUCT CHARACTERISTICS

BVCBO	40V
BVCEO	30V
HFE@2V1A	100-400
IC	3A

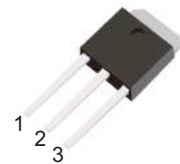
■ FEATURES

- * High current output up to 3A
- * Low saturation voltage
- * Complement to 772

Symbol



TO-252



TO-251

■ ORDER INFORMATION

Order codes		Package	Packing
Halogen-Free	Halogen		
N/A	RST882C	TO-251	70 pieces/Tube
N/A	RST882D	TO-252	2500 pieces/Reel

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	40	V
Collector-Emitter Voltage		V_{CEO}	30	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	3	A
	Pulse	I_{CP}	7	A
Base Current		I_B	0.6	A
Collector Dissipation ($T_A=25^{\circ}C$)	TO-251/TO-252	P_C	1	W
Junction Temperature		T_J	+150	$^{\circ}C$
Storage Temperature		T_{STG}	-55 ~ +150	$^{\circ}C$

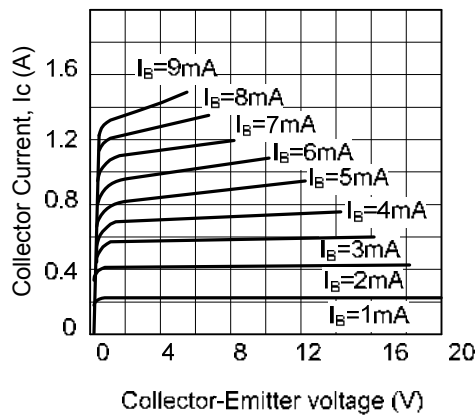
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$, unless otherwise noted)

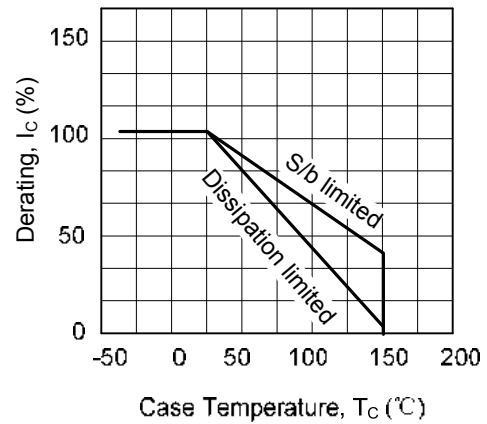
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=100\mu\text{A}$, $I_E=0$	40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}$, $I_B=0$	30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=100\mu\text{A}$, $I_C=0$	7			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=30\text{V}$, $I_E=0$			1000	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=3\text{V}$, $I_C=0$			1000	nA
DC Current Gain (Note)	h_{FE1}	$V_{CE}=2\text{V}$, $I_C=20\text{mA}$	30	200		
	h_{FE2}	$V_{CE}=2\text{V}$, $I_C=1\text{A}$	100	150	400	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=2\text{A}$, $I_B=0.2\text{A}$		0.3	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=2\text{A}$, $I_B=0.2\text{A}$		1.0	2.0	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5\text{V}$, $I_C=0.1\text{A}$		80		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$		45		pF

Note: Pulse test: $PW<300\mu\text{s}$, Duty Cycle $<2\%$

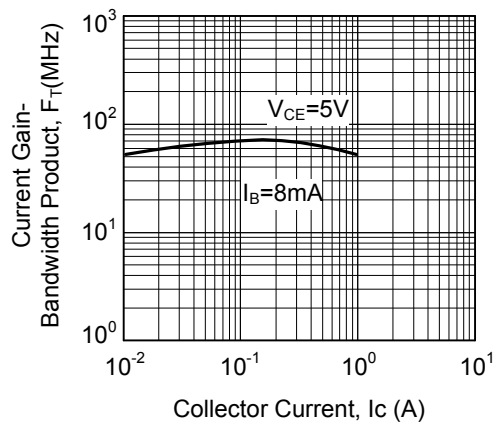
Static Characteristics



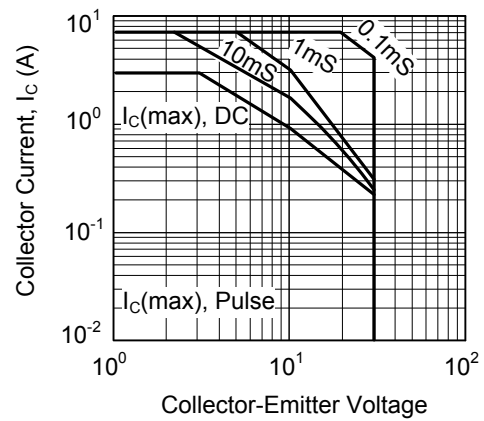
Derating Curve of Safe Operating Areas



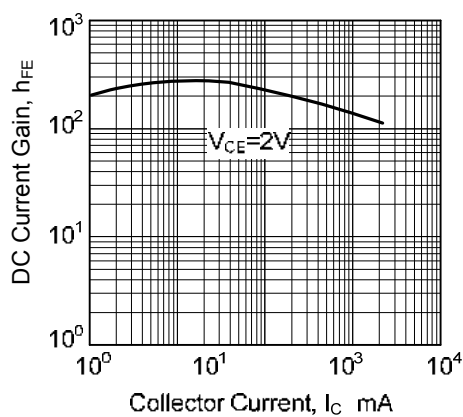
Current Gain-Bandwidth Product



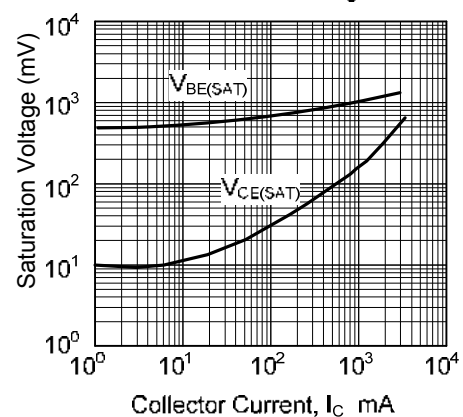
Safe Operating Area



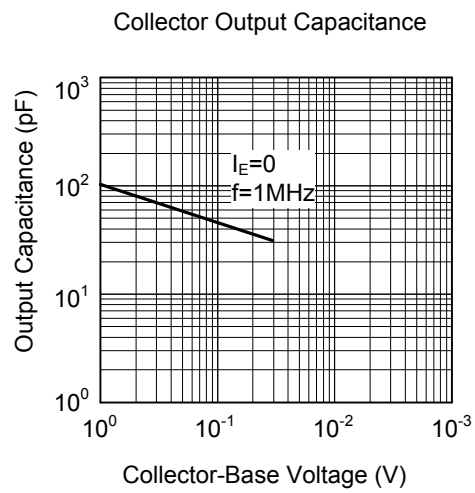
DC Current Gain



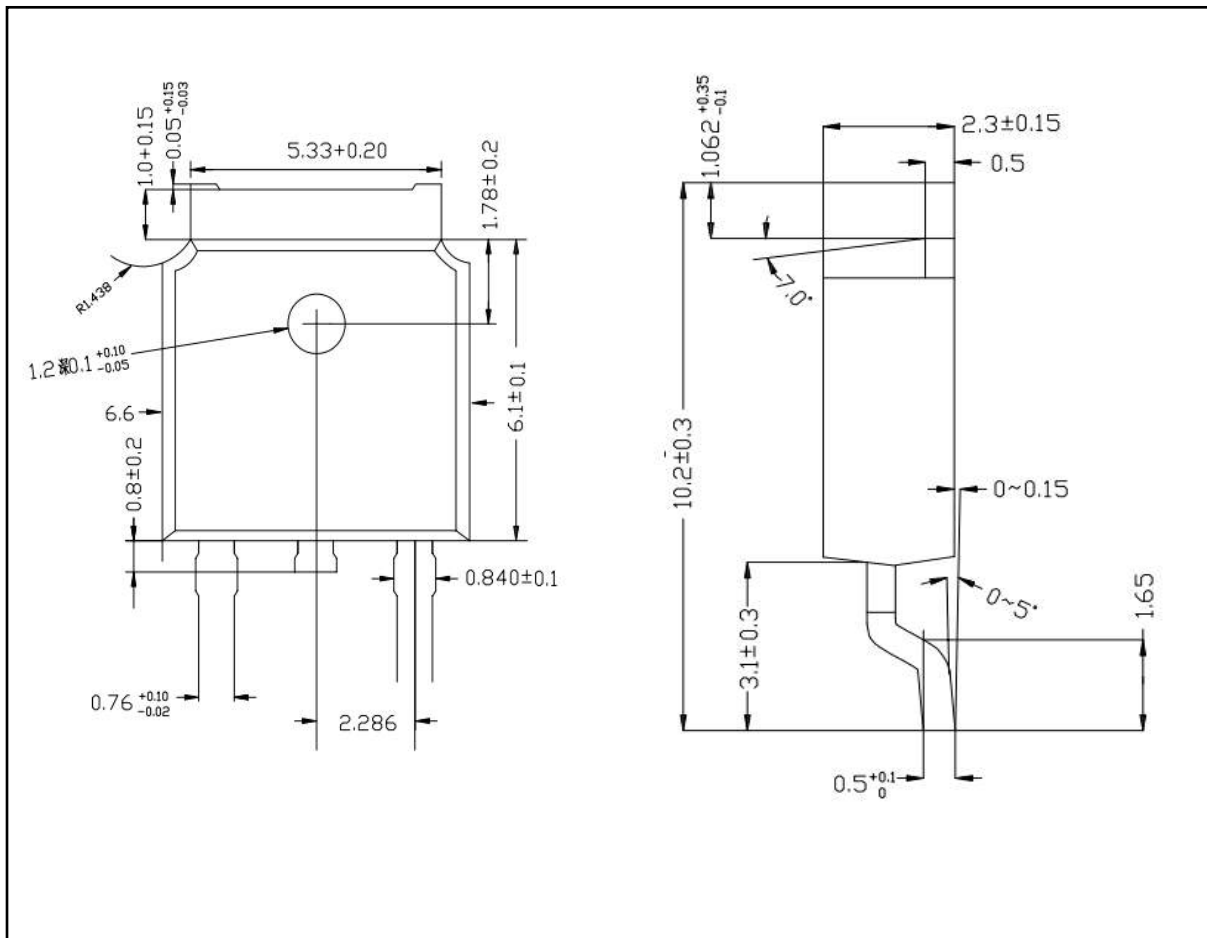
Saturation Voltage



■ TYPICAL CHARACTERISTICS(Cont.)



■ TO-252-2L PACKAGE OUTLINE DIMENSIONS



■ TO-251-3L PACKAGE OUTLINE DIMENSIONS

