GSTDT5551J4F

Dual NPN Transistor

Product Description

Collector-Emitter Voltage 160V
Collector Current 200mA

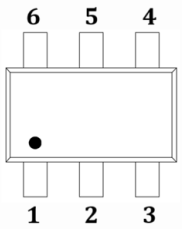
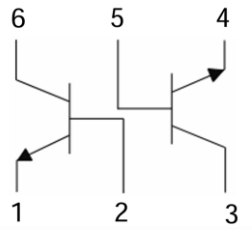
Features

- Rugged and Reliable
- RoHS Compliant and Halogen Free

Mechanical Data

- Case : SOT-363 Package
- Epoxy meets UL 94 V-0 Flammability Rating

Package and Pin Assignment

SOT-363	Equivalent Circuit
	

Pin	Description
1	E1
2	B1
3	C2
4	E2
5	B2
6	C1

Ordering and Marking Information

Ordering Information			
Part Number	**Package**	**Marking Code**	**Quantity/Reel**
GSTDT5551J4F	SOT-363	K4N	3000 PCS

GSTDT5551J4F

- **Product Code:** GSTDT5551
- **Package Code:** **J4** for SOT-363 Package
- **Green Level:** **F** for RoHS Compliant and Halogen Free

Marking Information
K4N - **Product Code:** K4N

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

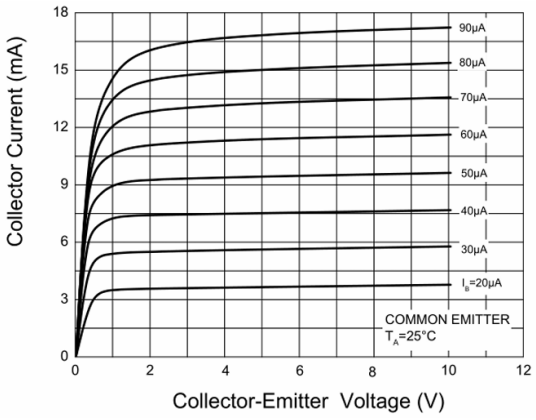
Symbol	Parameter	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	160	V
V_{CBO}	Collector-Base Voltage	180	V
V_{EBO}	Emitter-Base Voltage	6.0	V
$I_{C(DC)}$	Collector Current (DC)	200	mA
P_D	Power Dissipation T_A=25°C✶	200	mW
$R_{\Theta JA}$	Thermal Resistance, Junction to Ambient	625	°C/W
T_J	Junction Temperature Range	150	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

✶ Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

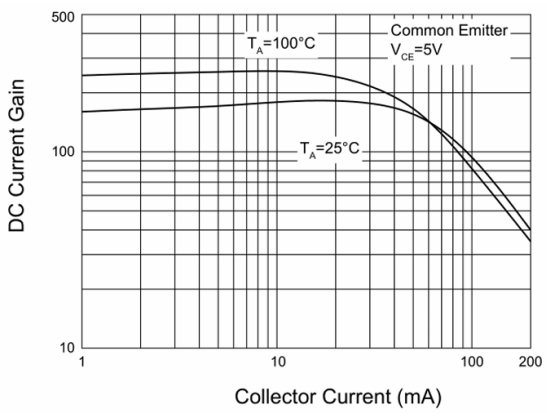
Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Description	Conditions	Min	Max	Unit
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C=1mA, I_B=0mA	160	-	V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C=0.1mA, I_E=0mA	180	-	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E=0.01mA, I_C=0mA	6.0	-	V
I_{CBO}	Collector Cutoff Current	V_{CB}=120V, I_E=0mA	-	50	nA
I_{EBO}	Emitter Cutoff Current	V_{EB}=4V, I_C=0mA	-	50	nA
h_{FE}	DC Current Gain	I_C=1mA, V_{CE}=5.0V	80	-	-
		I_C=10mA, V_{CE}=5.0V	100	300	-
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C=10mA, I_B=1mA	-	0.15	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C=10mA, I_B=1mA	-	1.00	V
f_T	Current Gain - Bandwidth Product	V_{CE}=20V, I_C=10mA, f=100MHz	100	300	MHz
C_{ob}	Output Capacitance	V_{CB}=10.0V, I_C=0, f=1.0MHz	-	6.0	pF
NF	Noise Figure	V_{CB}=5V, I_C=200μA, f=1KHz R_S=1KΩ	-	8	dB

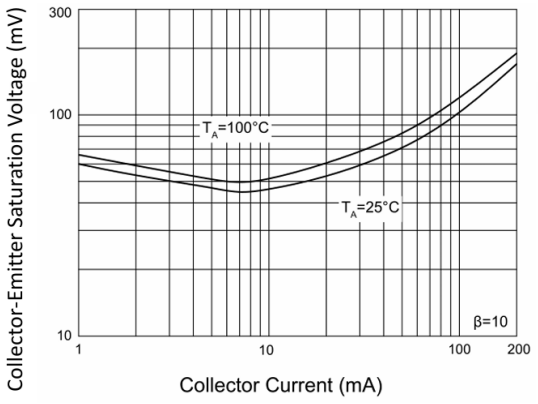
Typical Characteristics (T_A = 25°C unless otherwise specified.)



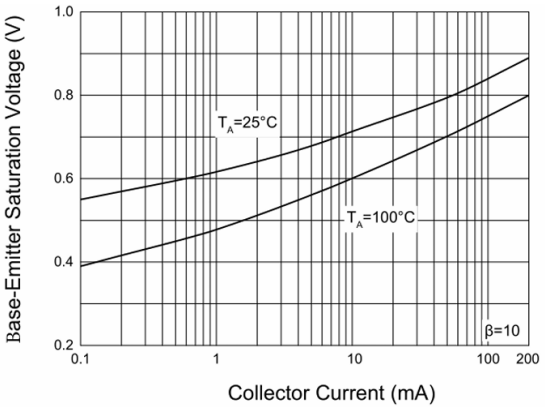
Static Characteristic



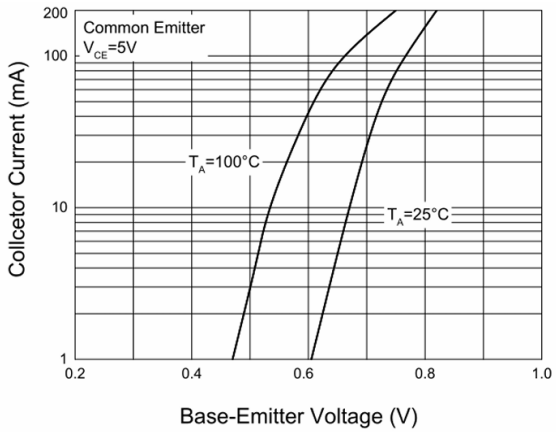
DC Current Gain Characteristics



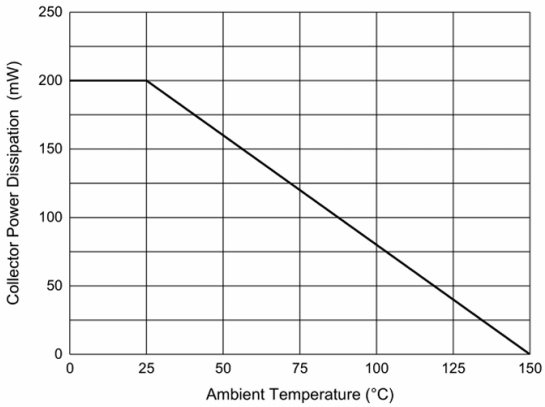
Collector-Emitter Saturation Voltage Characteristics



Base-Emitter Saturation Voltage Characteristics



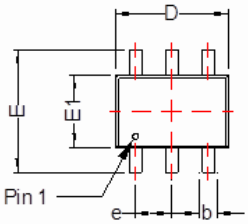
Base-Emitter Voltage Characteristics

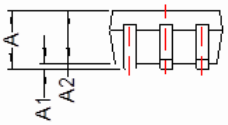


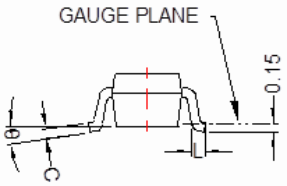
Collector Power Derating Curve

SOT-363

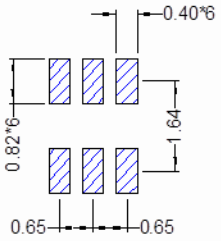
Package Dimension







Recommended Land Pattern



(Unit: mm)

Dimensions				
SYMBOL	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.80	1.10	0.031	0.043
A1	0.00	0.10	0.000	0.004
A2	0.70	1.00	0.028	0.039
b	0.15	0.30	0.006	0.012
c	0.08	0.25	0.003	0.010
D	1.80	2.20	0.071	0.087
E	1.80	2.40	0.071	0.094
E1	1.15	1.35	0.045	0.053
e	0.65 BSC		0.026 BSC	
L	0.26	0.45	0.010	0.018
θ	0°	8°	0°	8°

NOTE:
Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions.

NOTICE

- Globaltech Semiconductor assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all Globaltech Semiconductor products described or contained herein. Globaltech Semiconductor products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner.

- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Globaltech Semiconductor makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.

- Information furnished is believed to be accurate and reliable. However Globaltech Semiconductor assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties, which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Globaltech Semiconductor. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information without express written approval of Globaltech Semiconductor.

CONTACT US

GS Headquarter	
	4F.,No.43-1,Lane11,Sec.6,Minquan E.Rd Neihu District Taipei City 114, Taiwan (R.O.C)
	886-2-2657-9980
	886-2-2657-3630
	sales_twn@gs-power.com

RD Division	
	824 Bolton Drive Milpitas. CA. 95035
	1-408-457-0587