

### Features

- For Switching and AF Amplifier Applications
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)



## **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 417°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-25	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	Ι <sub>C</sub>	-1.5	Α
Power Dissipation	PD	300	mW

# Classification of $h_{FE(1)}$

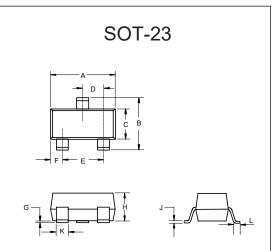
Part Number	MMSS8550-L	MMSS8550-H
Range	120-200	200-350

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

#### **Internal Structure**

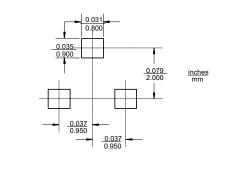


Marking: Y2



DIMENSIONS					
DIM INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOTE
Α	0.110	0.120	2.80	3.04	
В	0.083	0.104	2.10	2.64	
С	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
Е	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
Н	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.014	0.020	0.35	0.51	
L	0.007	0.020	0.20	0.50	

#### Suggested Solder Pad Layout



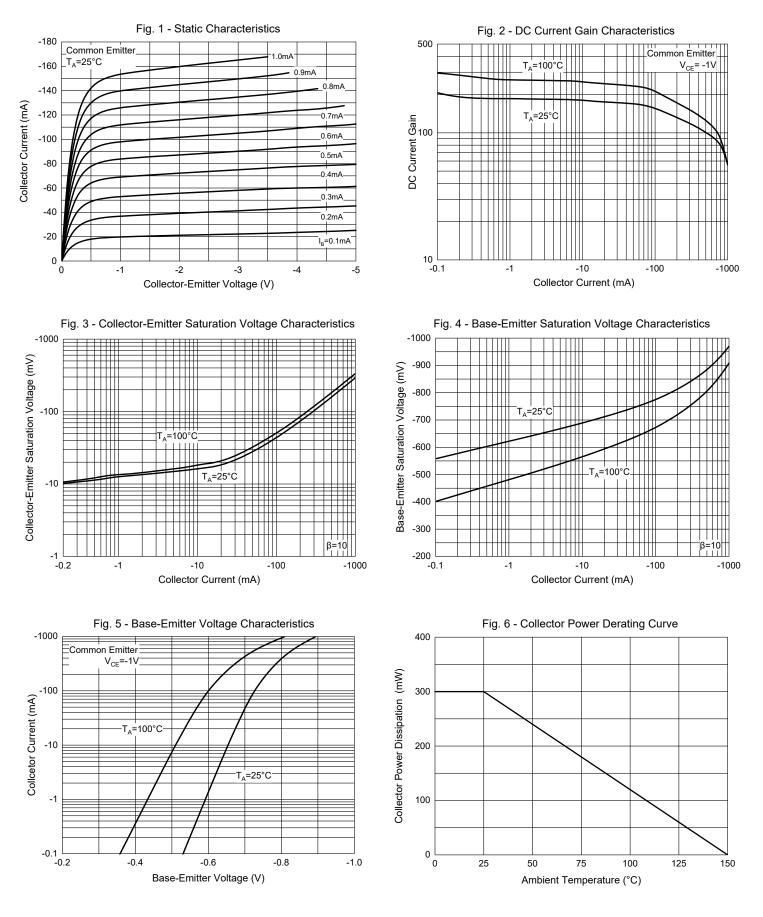


## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min	Тур	Мах	Units	Conditions
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	-40			V	I <sub>C</sub> =-100μ A, ξ=0
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	-25			V	I <sub>C</sub> =-100μ A, μ=0
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	-5			V	I <sub>E</sub> =-100μ A, ξ=0
Collector-Base Cutoff Current	I <sub>CBO</sub>			-100	nA	$V_{CB}$ =-40V, I <sub>E</sub> =0
Collector-Emitter Cutoff Current	I <sub>CEO</sub>			-100	nA	V <sub>CE</sub> =-20V, I <sub>B</sub> =0
Emitter-Base Cutoff Current	I <sub>EBO</sub>			-100	nA	$V_{EB} = -5V, I_C = 0$
DC Current Gain	h <sub>FE(1)</sub>	120		350		V <sub>CE</sub> =-1V, I <sub>C</sub> =-100mA
	h <sub>FE(2)</sub>	40				V <sub>CE</sub> =-1V, I <sub>C</sub> =-800mA
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>			-0.5	V	I <sub>C</sub> =-800mA, I <sub>B</sub> =-80mA
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>			-1.2	V	I <sub>C</sub> =-800mA, I <sub>B</sub> =-80mA
Base-Emitter Voltage	V <sub>BE</sub>			-1	V	$V_{CE}$ =-1V, $I_{C}$ =-10mA
Transition Frequency	f <sub>T</sub>	100			MHz	V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA, f=30MHz



## **Curve Characteristics**





# **Ordering Information**

Device	Packing		
Part Number-TP	Tape&Reel: 3Kpcs/Reel		

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