

## Product Description

Stanford Microdevices' SXT Series are high performance GaAs Heterojunction Bipolar Transistor (HBT) MMICs housed in low-cost surface-mountable plastic packages. These HBT MMICs are fabricated using molecular beam epitaxial growth technology which produces reliable and consistent performance from wafer to wafer and lot to lot.

These amplifiers are specially designed for use as driver devices for infrastructure equipment in the 1800-1950 MHz PCS/PHS band.

Its high linearity make it an ideal choice for multi-carrier as well as digital applications.

## SXT Series

### 1800-1950 MHz 50 Ohm MMIC Amplifiers

Scheduled for Feb-98 Release

### Product Features

- Patented High Reliability GaAs HBT Technology
- Single Supply Operation
- High 3rd Order Intercept : +43dBm to +49dBm
- High Gain : Up To 14dB
- True 50 Ohm MMIC - No External Matching Required
- Surface-Mountable Power Plastic Package

### Applications

- Multi-Carrier Systems
- Analog and Digital Applications

### Electrical Specifications at Ta = 25C

Symbol	Parameters: Test Conditions:		Units	Min.	Typ.	Max.			
	$Z_0 = 50 \text{ Ohms}$ , $f = 1800\text{-}1900 \text{ MHz}$								
$P_{1dB}$	Output Power at 1dB Compression	SXT-1	dBm	26	27				
		SXT-2					29	30	
		SXT-3					32	33	
$S_{21}$	Power Gain	SXT-1	dB		13				
		SXT-2					12		
		SXT-3					11		
VSWR	Input VSWR	$f = 1850\text{-}1910 \text{ MHz}$ $f = 1800\text{-}1950 \text{ MHz}$	-		1.5:1 2.0:1				
VSWR	Output VSWR	$f = 1850\text{-}1910 \text{ MHz}$ $f = 1800\text{-}1950 \text{ MHz}$	-		3.0:1 3.0:1				
$IP_3$	Third Order Intercept Point	SXT-1	dBm		43				
		SXT-2					46		
		SXT-3					49		
$V_d$	Device Voltage	SXT-1 Id=400mA	V	4.0	5.0	6.0			
		SXT-2 Id=525mA					6.5	7.5	8.5
		SXT-3 Id=900mA					8.0	9.0	10.0

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