

## 2N5484, 2N5485, 2N5486

## N-Channel Silicon Junction Field-Effect Transistor

## • VHF/UHF Amplifiers

Absolute maximum ratings at  $T_A = 25^\circ\text{C}$ 

Reverse Gate Source Voltage	- 25 V
Reverse Gate Drain Voltage	- 25 V
Continuous Device Power Dissipation	360 mW
Power Derating	3.27 mW/°C

## At 25°C free air temperature:

## Static Electrical Characteristics

		2N5484		2N5485		2N5486		Process NJ26	
		Min	Max	Min	Max	Min	Max	Unit	Test Conditions
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	- 25		- 25		- 25		V	$I_G = 1\ \mu\text{A}, V_{DS} = \emptyset\text{V}$
Gate Reverse Current	$I_{GSS}$		- 1		- 1		- 1	nA	$V_{GS} = - 20\text{V}, V_{DS} = \emptyset\text{V}$
			- 0.2		- 0.2		- 0.2	$\mu\text{A}$	$V_{GS} = - 20\text{V}, V_{DS} = \emptyset\text{V}$ $T_A = 100^\circ\text{C}$
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	- 0.3	- 3	- 0.5	- 4	- 2	- 6	V	$V_{DS} = 15\text{V}, I_D = 10\ \text{nA}$
Drain Saturation Current (Pulsed)	$I_{DSS}$	1	5	4	10	8	20	mA	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$

## Dynamic Electrical Characteristics

Forward Transconductance	$R_{e(Y_{fs})}$	2500						$\mu\text{S}$	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$	f = 100 MHz
				3000		3500			$\mu\text{S}$	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$
Common Source Forward Transadmittance	$Y_{fs}$	3000	6000	3500	7000	4000	8000	$\mu\text{S}$	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$	f = 1 kHz
Input Admittance	$R_{e(Y_{is})}$		100					$\mu\text{S}$	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$	f = 100 MHz
					1000		1000		$\mu\text{S}$	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$
Output Conductance	$R_{e(Y_{os})}$		75					$\mu\text{S}$	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$	f = 100 MHz
					100		100		$\mu\text{S}$	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$
Common Source Output Admittance	$Y_{os}$		50		60		75	$\mu\text{S}$	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$	f = 1 MHz
Common Source Input Capacitance	$C_{iss}$		5		5		5	pF	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$	f = 1 MHz
Common Source Reverse Transfer Capacitance	$C_{rss}$		1		1		1	pF	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$	f = 1 MHz
Output Capacitance	$C_{oss}$		2		2		2	pF	$V_{DS} = 15\text{V}, V_{GS} = \emptyset\text{V}$	f = 1 MHz

## TO-226AA Package

Dimensions in Inches (mm)

## Pin Configuration

1 Drain, 2 Source, 3 Gate

## Surface Mount

SMP5484, SMP5485, SMP5486



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