

C Series, 1000MHz, 30dB gain, push-pull amplifier

★ FEATURES

- Excellent linearity
- Excellent distortion performance
- High gain
- Extremely low noise
- Excellent return loss properties

★ APPLICATIONS

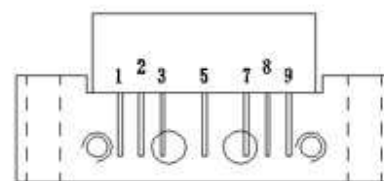
For CATV systems operating over a frequency range of 40 to 1000 MHz.

PINNING — SOT115J

PIN	DESCRIPTION
1	Input
2	Common
3	Common
5	+VB
7	Common
8	Common
9	Output

★ DESCRIPTION

KF1030C in a SOT115J package, operating at a supply voltage of 24V (DC), and intended for use as a line-extender.



Side view

Fig.1 Simplified outline

★ QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
G_p	power gain	$f=50\text{MHz}$	29.5	31.0	dB
		$f=1000\text{MHz}$	30.5	—	dB
I_{tot}	total current consumption (DC)	$V_B = +24\text{VDC}$	290	320	mA

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★ LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134)

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
VB	supply voltage		25	V
V _i	RF input voltage [1]	-	40	dBmV
T _{stg}	storage temperature	-20	+100	°C
T _{mb}	operating mounting base temperature	-20	+80	°C

[1] In case of single tone

★ CHARACTERISTICS

Bandwidth 40 to 1000 MHz; VB = +24 VDC; Tmb = 25 °C; ZS = ZL = 75 Ω .

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
G _p	power gain	f=50MHz	29.5	31.0	dB
		f=1000MHz	30.5		dB
SL	slope cable equivalent	f=40 to 1000 MHz	0.5	2.5	dB
FL	flatness of frequency response	f=40 to 1000 MHz		±0.5	dB
S ₁₁	input return losses	f=40 to 1000 MHz	18		dB
S ₂₂	output return losses	f=40 to 1000 MHz	16		dB
CTB	composite triple beat	84 channels flat; V _o = 44 dBmV; measured at 743.25 MHz		-60	dB
CSO	composite second order distortion	84 channels flat; V _o = 44 dBmV; measured at 744.25 MHz		-62	dB
X _{mod}	cross modulation	84 channels flat; V _o = 44 dBmV; measured at 55.25 MHz		-60	dB
F	Noise figure			7	dB
I _{tot}	total current consumption (DC)	VB=+24VDC, RF OFF	290	320	mA

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★ PACKAGE OUTLINE

Rectangular single-ended package; aluminum flange; 2 vertical mounting holes;
2 x 6-32 UNC and 2 extra horizontal mounting holes; 7 gold-plated in-line leads

SOT115J

