

THREE-BAND GRAPHIC EQUALIZER

FEATURES

- ± 10 dB Boost/Cut Range
- Low Voltage Operation
- Low Current Drain for Battery Operation
- Two Independent Channels for Stereo
- Low Distortion
- Surface Mount Package

APPLICATIONS

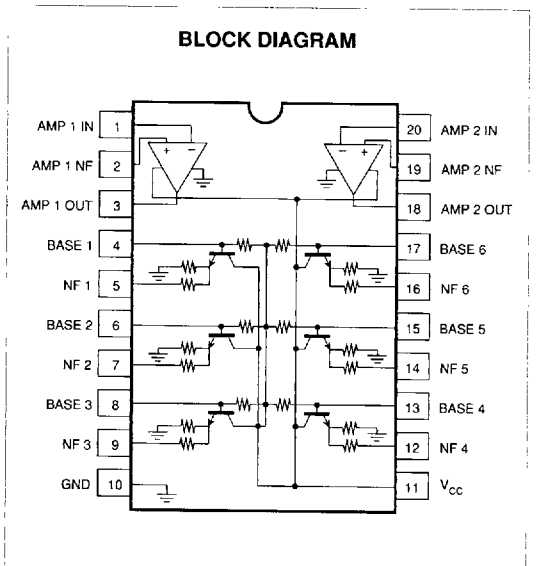
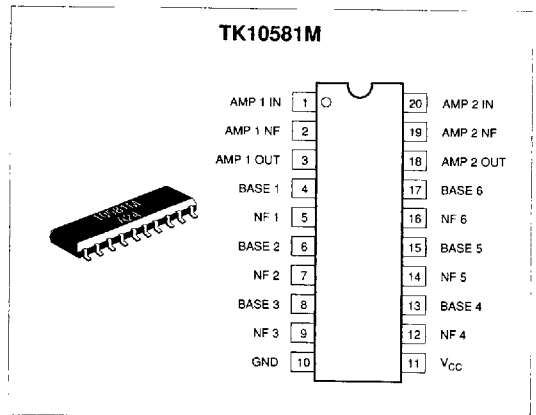
- Head Phones
- Stereo Radios
- Tape Players
- Musical Instruments
- Effects Pedals
- Stereo Mixers

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DESCRIPTION

The TK10581M is a low voltage three-band stereo graphic equalizer. The circuit is optimized for battery operation at 1.8 volts. Current consumption is typically 3 mA. The circuit can be used to implement a three-band audio equalizer in portable tape players, musical instruments, car stereos, mixers, effects pedals and other audio equipment. The TK10581 is configured for a ± 10 dB boost/cut range. Features are low distortion (0.2%) and 40 dB ripple rejection.

The TK10581 is available in a MFP20 surface mount package.



ORDERING INFORMATION

TK10581 □ □ □

PACKAGE CODE

M: Surface Mount

TEMP. RANGE

C: -20 to +70 °C

TAPE/REEL CODE

BX: Bulk/Bag
TX: Paper Tape
TR: Tape Right
TL: Tape Left
MG: Magazine

TK10581

ABSOLUTE MAXIMUM RATINGS

Input Voltage V_{CCMAX} 6 V
Power Dissipation (Note 1) 350 mW
Junction Temperature 150 °C
Storage Temperature Range -55 to +125 °C

Operating Temperature Range -20 to +70 °C
Lead Soldering Temp. (10 sec.) 240 °C
Operating Voltage Range 1.8 to 5.0 V

ELECTRICAL CHARACTERISTICS

Test Conditions: $T_A = 25\text{ °C}$, $V_{CC} = 3\text{ V}$

SYMBOL	PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CC}	Circuit Current			3.0	4.5	mA
V_{OMAX}	Max Output Voltage	THD = 1%, All Flat	500	600		mV
THD	Distortion	$V_{IN} = 80\text{ mV}$, All Flat		0.05	0.2	%
V_G	Voltage Gain	$V_{IN} = 80\text{ mV}$, All Flat	-3.2	-0.7	+2.0	dB
CR	Control Range	$V_{IN} = 80\text{ mV}$	±8.0	±10	±12.0	dB
RR	Ripple Rejection	$F_{IN} = 100\text{ Hz}$, $V_{RIN} = 100\text{ mVp-p}$ Input Terminal Open	-35	-40		dB

Note 1: Power dissipation must be derated at the rate of 3.5 mW/°C for operation at $T_A = 25\text{ °C}$ and above.

NOTES