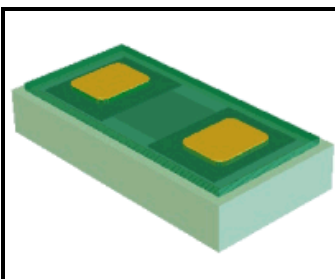




**Product Family:** [Equalizer - Single Ended Bessel Loss](#)

**Part Number Series:** [EF-05A Series](#)



**Construction:**

- High Purity Polished Alumina Ceramic
- Nickel alloy thin-film resistive element
- Epoxy-resin overcoat
- Gold terminations (RoHS compliant and Pb Free)

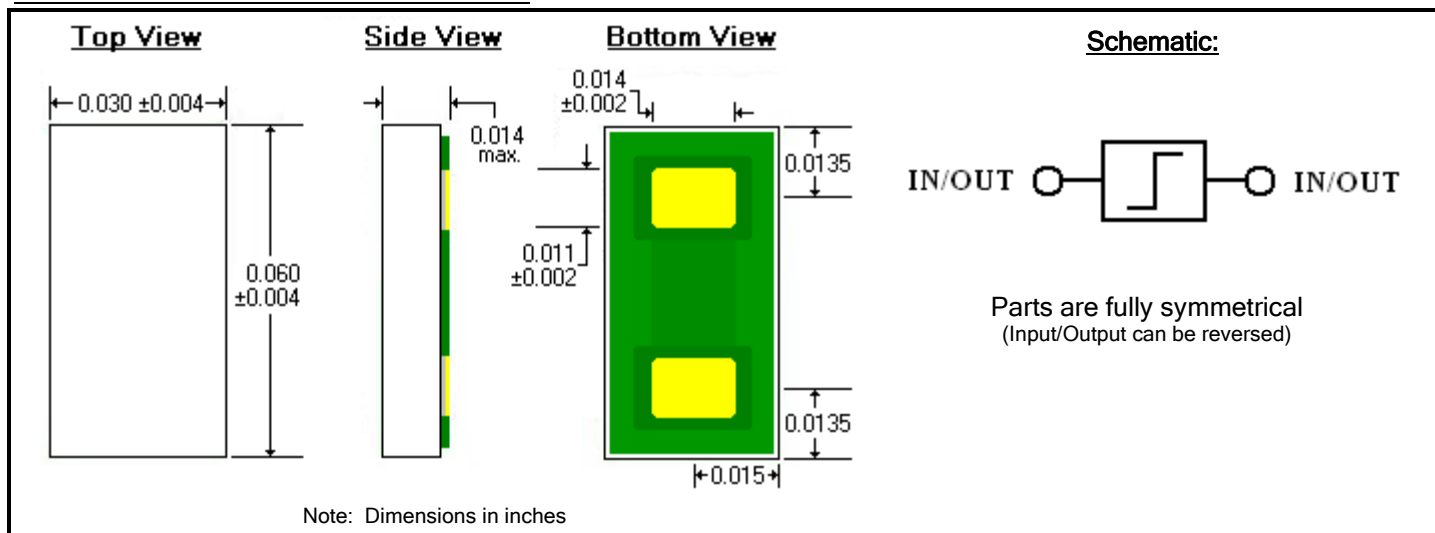
**Features:**

- 0603 package size (0402 footprint)
- Data rates of 6.25, 10.0 and 12.5 Gb/s
- Compensates for Bessel losses of 2, 3, 4, 5 and 6dB
- 0.6dB maximum ripple
- High volume production suitable for commercial and special applications

**Description:**

These networks compensate for the loss in high speed data transmission media. This part series was developed to compensate for applications involving ATE load board trace loss. This series covers application data rates of 6.25, 10.0 and 12.5 Gb/s to equalize ideal Bessel function loses of 2, 3, 4, 5 and 6dB to a resultant function with less than 0.6dB of ripple through the pass band. This component is a 0603 package with an 0402 footprint intended for SMT assembly. Custom precision equalization for other loss functions may be available by calling the factory.

**Product Dimensions and Schematic:**



**EF-05A Series Part Numbering:** Ex: EF2A51A063E05A-T10

Product Designator	Element Quantifier	Circuit Type	Impedance	Package Size Code	Date Rate	50 MHz Loss Designator	Maximum Ripple	Media Function	Packaging Tape & Reel
EF	2 = two elements	A = RC Schunt	5 = 50Ω	1A = 0603 package with 0402 footprint	063 = 6.25 Gb/s 100 = 10.0 Gb/s 125 = 12.5 Gb/s	C = -2dB E = -3dB G = -4dB I = -5dB K = -6dB	05 = 0.5dB	A = ATE Load Board	-T10=1,000 pcs/reel -T50=5,000 pcs/reel

**Product Offering Matrix:**

Data Rate	50 MHz Loss				
	C = 2dB	E = 3dB	G = 4dB	I = 5dB	K = 6dB
063 = 6.25 Gb/s	EF2A51A063C05A	EF2A51A063E05A	EF2A51A063G05A	EF2A51A063I05A	EF2A51A063K05A
100 = 10.0 Gb/s	EF2A51A100C05A	EF2A51A100E05A	EF2A51A100G05A	EF2A51A100I05A	EF2A51A100K05A
125 = 12.5 Gb/s	EF2A51A125C05A	EF2A51A125E05A	EF2A51A125G05A	EF2A51A125I05A	

**Electrical Specifications:**

Parameter	Specification
Type	Absorptive Low Pass
Attenuation at 50 MHz (Low Frequency Attenuation)	-2, -3, -4, -5, -6 dB (tolerance: +/- 0.6 dB)
Attenuation at (bit rate)	-1.0 dB max
Bandwidth	20 GHz (-1.0 dB Max)
Resultant Max Ripple thru 1/4 Bit Rate	0.6 dB
Reference Impedance	50 $\Omega$
Rated Power	0.10 Watt
Insulation Resistance	> 100 M $\Omega$ @ 50 Vdc
Operating Temperature	-40 to +125°C
Storage Temperature	-55 to +125°C

**Electrical Performance Characteristics:**

Part Number	Data Rate	Attenuation @ 50MHz	Attenuation @ 1/4 Bit Rate	Attenuation @ 1/2 Bit Rate	Attenuation @ Bit Rate
EF2A51A063C05A	6.250 Gb/s	1.9 dB	1.3 dB	0.7 dB	0.4 dB
EF2A51A100C05A	10.000 Gb/s	1.8 dB	1.3 dB	0.7 dB	0.3 dB
EF2A51A125C05A	12.500 Gb/s	1.8 dB	1.4 dB	0.8 dB	0.5 dB
EF2A51A063E05A	6.250 Gb/s	2.9 dB	1.7 dB	0.9 dB	0.4 dB
EF2A51A100E05A	10.000 Gb/s	2.8 dB	1.8 dB	1.0 dB	0.5 dB
EF2A51A125E05A	12.500 Gb/s	3.1 dB	1.9 dB	1.0 dB	0.6 dB
EF2A51A063G05A	6.250 Gb/s	3.7 dB	2.4 dB	1.3 dB	0.6 dB
EF2A51A100G05A	10.000 Gb/s	4.0 dB	2.4 dB	1.2 dB	0.5 dB
EF2A51A125G05A	12.500 Gb/s	3.7 dB	2.5 dB	1.4 dB	0.8 dB
EF2A51A063I05A	6.250 Gb/s	5.3 dB	3.0 dB	1.5 dB	0.7 dB
EF2A51A100I05A	10.000 Gb/s	5.1 dB	3.3 dB	1.7 dB	0.6 dB
EF2A51A125I05A	12.500 Gb/s	4.9 dB	2.9 dB	1.5 dB	0.8 dB
EF2A51A063K05A	6.250 Gb/s	6.1 dB	3.4 dB	1.6 dB	0.7 dB
EF2A51A100K05A	10.000 Gb/s	5.8 dB	3.5 dB	1.7 dB	0.6 dB

