



EMIF04-2005QCF

IPAD.™

EMI FILTER INCLUDING ESD PROTECTION

APPLICATIONS:

Where EMI filtering in ESD sensitive equipment is required :

- Computers and printer
- Communication systems
- Mobile phones

DESCRIPTION

The EMIF04-2005QCF is a highly integrated device designed to suppress EMI/RFI noise in all systems subjected to electromagnetic interferences. Additionally, the EMIF04-2005QCF filter includes an ESD protection circuitry which prevents destruction when subjected to ESD discharge up to 15kV.

BENEFITS

- EMI symmetrical low-pass filter
- Low PCB space consuming: 4 mm²
- Very thin package < 1 mm
- High reliability offered by monolithic integration

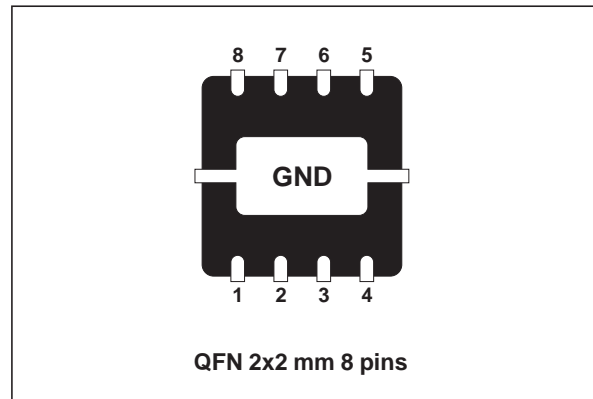
COMPLIES WITH THE FOLLOWING STANDARDS:

IEC61000-4-2:

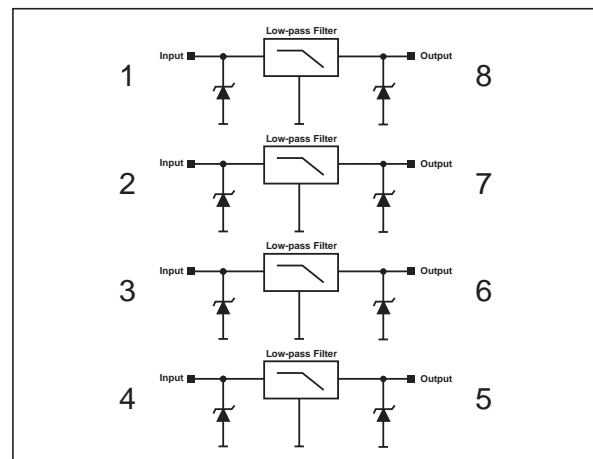
15kV (air discharge)
8 kV (contact discharge)

MIL STD 883E - Method 3015-6 Class 3:

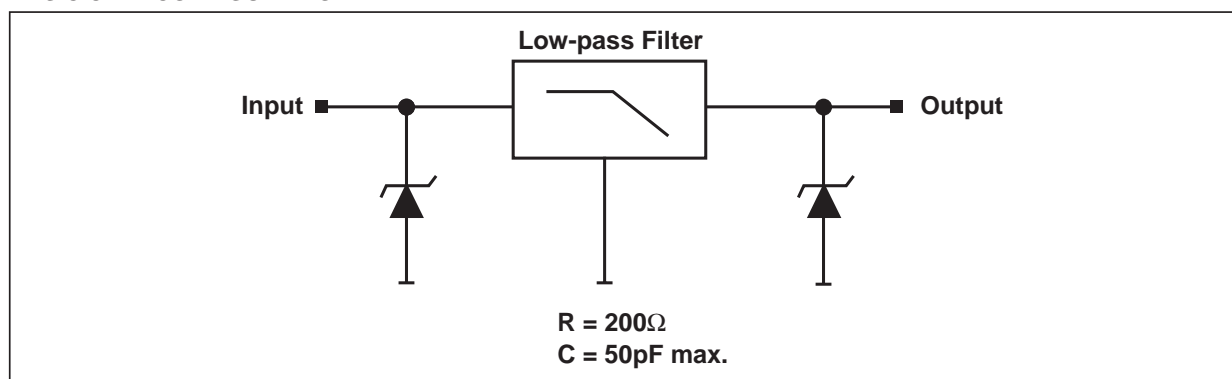
25kV (human body test)



PIN CONFIGURATION



BASIC CELL CONFIGURATION



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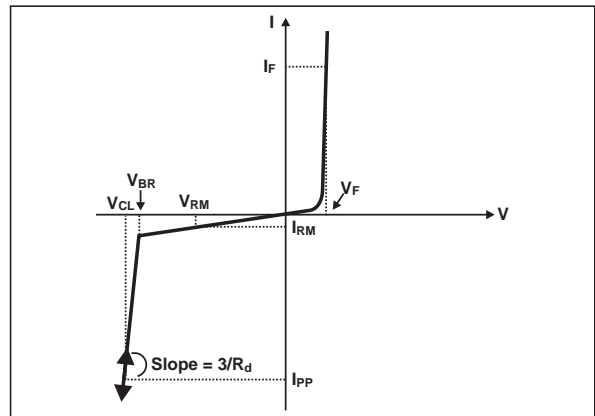
EMIF04-2005QCF

ABSOLUTE RATINGS (T_{amb} = 25°C)

Symbol	Parameter and test conditions		Value	Unit
V _{PP}	ESD discharge	EC61000-4-2 air discharge IEC61000-4-2 contact discharge	± 15 ± 8	kV
T _j	Junction temperature		125	°C
T _{stg}	Storage temperature range		-55 + 150	°C
T _{op}	Operating temperature range		-40 to + 85	°C
T _L	Maximum lead temperature for soldering during 10s at 5mm from case		260	°C

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C)

Symbol	Parameter
V _{BR}	Breakdown voltage
I _{RM}	Leakage current @ V _{RM}
V _{RM}	Stand-off voltage
V _{CL}	Clamping voltage
I _{PP}	Peak pulse current
αT	Voltage temperature coefficient
V _F	Forward voltage drop



Symbol	Test conditions	Min.	Typ.	Max.	Unit
V _{BR}	I _R = 1 mA	6	8	10	V
I _{RM}	V _{RM} = 3V per line			500	μA
R _d	I _{PP} = 10A, t _p = 2.5μs (see note 1)		1		Ω
R _{i/O}		180	200	220	Ω
C _{in}	@ 0V bias		45	50	pF

Fig. 1: Filtering behavior.

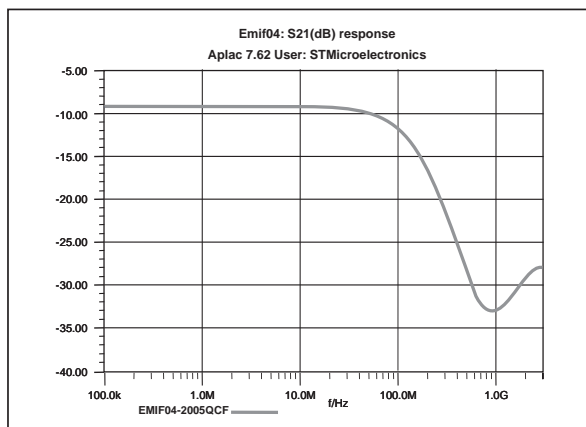
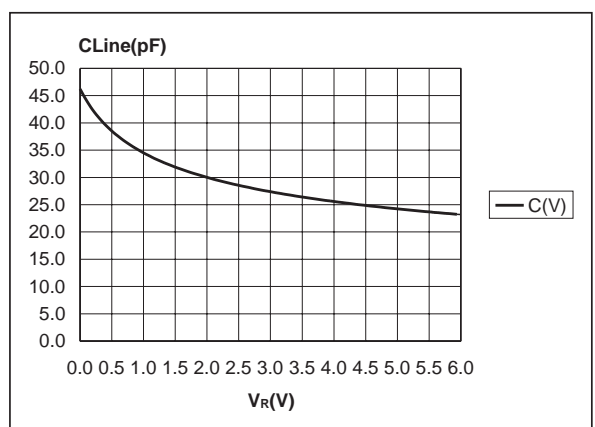
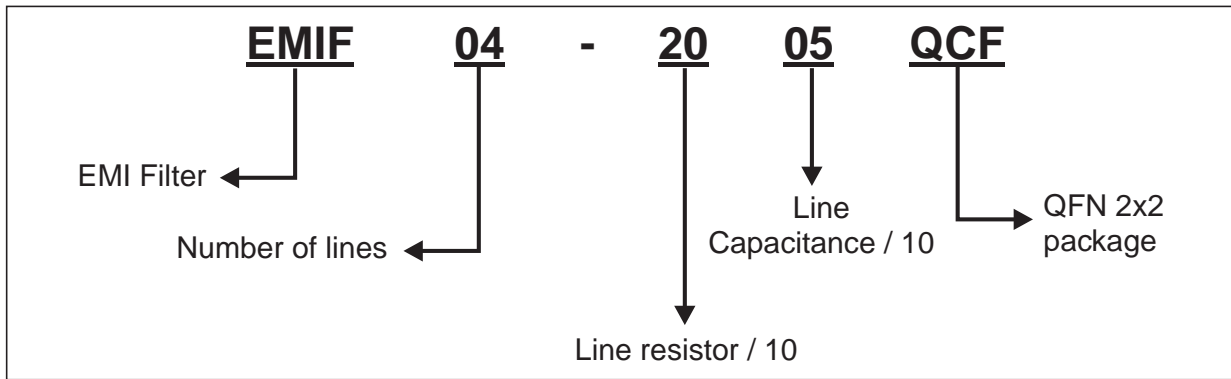


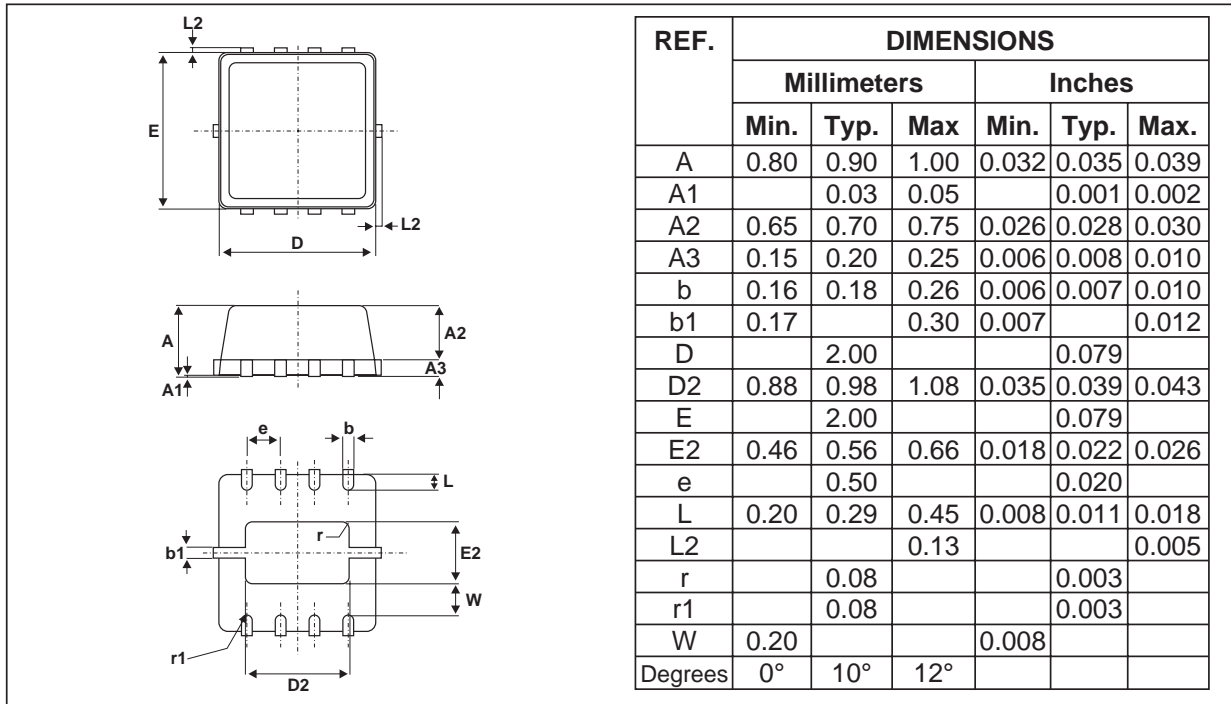
Fig. 2: Capacitance versus reverse applied voltage.



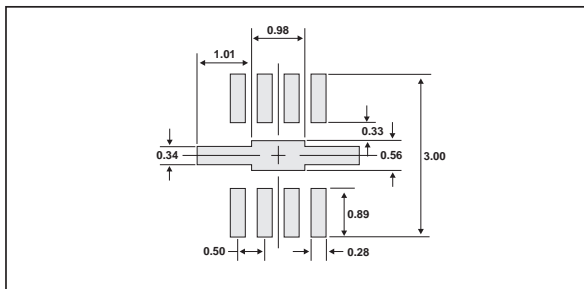
ORDER CODE



PACKAGE OUTLINE DIMENSIONS



FOOT PRINT DIMENSIONS (in millimeters)



OTHER INFORMATION

Ordering code	Marking	Package	Weight	Base qty	Delivery mode
EMIF04-2005QCF	E4	QFN 2x2 8 pins	8.4 mg	3000	Tape & reel

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