



### MCP1416T-E/MC Information



For Reference Only

Part Number MCP1416T-E/MC

Manufacturer Microchip Technology

Category Integrated Circuits (ICs)
PMIC - Gate Drivers

**Description** MOSFET DRVR 1.5A SGL HS 8DFN

Package 8-VFDFN Exposed Pad

For the pricing/inventory/lead time, please contact

us

Website: https://www.heisener.com E-mail: salesdept@heisener.com



Request a Quote

# **Certified Quality**

Heisener's commitment to quality has shaped our processes for sourcing, testing, shipping, and every step in between. This foundation underlies each component we sell.









# MCP1416T-E/MC Specifications

Manufacturer Part NumberMCP1416T-E/MCManufacturerMicrochip TechnologyCategoryIntegrated Circuits (ICs)Package8-VFDFN Exposed PadSeries-Driven ConfigurationLow-SideChannel TypeSingleNumber of Drivers1Gate TypeIGBT, N-Channel, P-Channel MOSFETVoltage - Supply4.5 V ~ 18 VLogic Voltage - VIL, VIH0.8V, 2.4VCurrent - Peak Output (Source, Sink)1.5A, 1.5AInput TypeNon-InvertingHigh Side Voltage - Max (Bootstrap)-Rise / Fall Time (Typ)20ns, 20nsOperating Temperature-40°C ~ 150°C (TJ)Mounting TypeSurface Mount		
CategoryIntegrated Circuits (ICs)PMIC - Gate DriversPackage8-VFDFN Exposed PadSeries-Driven ConfigurationLow-SideChannel TypeSingleNumber of Drivers1Gate TypeIGBT, N-Channel, P-Channel MOSFETVoltage - Supply4.5 V ~ 18 VLogic Voltage - VIL, VIH0.8V, 2.4VCurrent - Peak Output (Source, Sink)1.5A, 1.5AInput TypeNon-InvertingHigh Side Voltage - Max (Bootstrap)-Rise / Fall Time (Typ)20ns, 20nsOperating Temperature-40°C ~ 150°C (TJ)Mounting TypeSurface Mount	Manufacturer Part Number	MCP1416T-E/MC
Package 8-VFDFN Exposed Pad  Series - Driven Configuration Low-Side Channel Type Single Number of Drivers 1 Gate Type IGBT, N-Channel, P-Channel MOSFET Voltage - Supply 4.5 V ~ 18 V Logic Voltage - VIL, VIH 0.8V, 2.4V Current - Peak Output (Source, Sink) 1.5A, 1.5A Input Type Non-Inverting High Side Voltage - Max (Bootstrap) - Rise / Fall Time (Typ) 20ns, 20ns Operating Temperature -40°C ~ 150°C (TJ) Mounting Type Surface Mount	Manufacturer	Microchip Technology
Package8-VFDFN Exposed PadSeries-Driven ConfigurationLow-SideChannel TypeSingleNumber of Drivers1Gate TypeIGBT, N-Channel, P-Channel MOSFETVoltage - Supply4.5 V ~ 18 VLogic Voltage - VIL, VIH0.8V, 2.4VCurrent - Peak Output (Source, Sink)1.5A, 1.5AInput TypeNon-InvertingHigh Side Voltage - Max (Bootstrap)-Rise / Fall Time (Typ)20ns, 20nsOperating Temperature-40°C ~ 150°C (TJ)Mounting TypeSurface Mount	Category	Integrated Circuits (ICs)
Series - Low-Side Channel Type Single Number of Drivers 1 Gate Type IGBT, N-Channel, P-Channel MOSFET Voltage - Supply 4.5 V ~ 18 V Logic Voltage - VIL, VIH 0.8V, 2.4V Current - Peak Output (Source, Sink) 1.5A, 1.5A Input Type Non-Inverting High Side Voltage - Max (Bootstrap) Rise / Fall Time (Typ) 20ns, 20ns Operating Temperature -40°C ~ 150°C (TJ) Mounting Type Surface Mount		PMIC - Gate Drivers
Driven Configuration  Channel Type  Single  Number of Drivers  1  Gate Type  IGBT, N-Channel, P-Channel MOSFET  Voltage - Supply  4.5 V ~ 18 V  Logic Voltage - VIL, VIH  0.8V, 2.4V  Current - Peak Output (Source, Sink)  Input Type  Non-Inverting  High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  Operating Temperature  Mounting Type  Surface Mount	Package	8-VFDFN Exposed Pad
Channel Type  Single  Number of Drivers  1  Gate Type  IGBT, N-Channel, P-Channel MOSFET  Voltage - Supply  Logic Voltage - VIL, VIH  0.8V, 2.4V  Current - Peak Output (Source, Sink)  Input Type  Non-Inverting  High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  Operating Temperature  Mounting Type  Surface Mount	Series	-
Number of Drivers  Gate Type  IGBT, N-Channel, P-Channel MOSFET  Voltage - Supply  4.5 V ~ 18 V  Logic Voltage - VIL, VIH  0.8V, 2.4V  Current - Peak Output (Source, Sink)  Input Type  Non-Inverting  High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  Operating Temperature  -40°C ~ 150°C (TJ)  Mounting Type  Surface Mount	Driven Configuration	Low-Side
Gate Type  IGBT, N-Channel, P-Channel MOSFET  Voltage - Supply  4.5 V ~ 18 V  Logic Voltage - VIL, VIH  0.8V, 2.4V  Current - Peak Output (Source, Sink)  Input Type  Non-Inverting  High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  20ns, 20ns  Operating Temperature  -40°C ~ 150°C (TJ)  Mounting Type  IGBT, N-Channel, P-Channel MOSFET  4.5 V ~ 18 V  0.8V, 2.4V  1.5A, 1.5A  Non-Inverting  Surface Mount	Channel Type	Single
Voltage - Supply  4.5 V ~ 18 V  Logic Voltage - VIL, VIH  0.8V, 2.4V  Current - Peak Output (Source, Sink)  Input Type  Non-Inverting  High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  20ns, 20ns  Operating Temperature  -40°C ~ 150°C (TJ)  Mounting Type  Surface Mount	Number of Drivers	1
Logic Voltage - VIL, VIH  Current - Peak Output (Source, Sink)  Input Type  Non-Inverting  High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  Operating Temperature  -40°C ~ 150°C (TJ)  Mounting Type  Surface Mount	Gate Type	IGBT, N-Channel, P-Channel MOSFET
Current - Peak Output (Source, Sink)  Input Type  Non-Inverting  High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  Operating Temperature  -40°C ~ 150°C (TJ)  Mounting Type  Surface Mount	Voltage - Supply	4.5 V ~ 18 V
Input Type  Non-Inverting  High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  20ns, 20ns  Operating Temperature  -40°C ~ 150°C (TJ)  Mounting Type  Surface Mount	Logic Voltage - VIL, VIH	0.8V, 2.4V
High Side Voltage - Max (Bootstrap)  Rise / Fall Time (Typ)  Operating Temperature  -40°C ~ 150°C (TJ)  Mounting Type  Surface Mount	Current - Peak Output (Source, Sink)	1.5A, 1.5A
Rise / Fall Time (Typ) $20ns, 20ns$ Operating Temperature $-40^{\circ}\text{C} \sim 150^{\circ}\text{C}$ (TJ)Mounting TypeSurface Mount	Input Type	Non-Inverting
Operating Temperature $-40^{\circ}\text{C} \sim 150^{\circ}\text{C} \text{ (TJ)}$ Mounting Type Surface Mount	High Side Voltage - Max (Bootstrap)	-
Mounting Type Surface Mount	Rise / Fall Time (Typ)	20ns, 20ns
	Operating Temperature	-40°C ~ 150°C (TJ)
	Mounting Type	Surface Mount
Package / Case 8-VFDFN Exposed Pad	Package / Case	8-VFDFN Exposed Pad
Supplier Device Package 8-DFN (2x3)	Supplier Device Package	8-DFN (2x3)
Report errors?		Report errors?

#### MCP1416T-E/MC Guarantees



#### **Quality Guarantees**

We provide 90 days warranty. \*

If the items you received were not in perfect quality, we would be responsible for your refund or replacement, but the items must be returned in their original condition.



#### **Service Guarantees**

We guarantee 100% customer satisfaction.

Our experienced sales team and tech support team back our services to satisfy all our customers.

### MCP1416T-E/MC Payment Methods



















### MCP1416T-E/MC Shipping Methods













If you have any question about MCP1416T-E/MC, please do not hesitate to contact us!

Website: https://www.heisener.com E-mail: salesdept@heisener.com