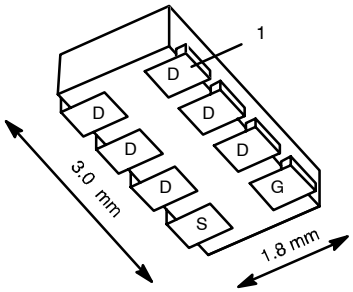
N-Channel 30-V (D-S) MOSFET

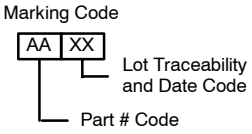
PRODUCT SUMMARY		
V_{DS} (V)	$r_{DS(on)}$ (Ω)	I_D (A)
30	0.035 @ V_{GS} = 10 V	±6.7
	0.055 @ V_{GS} = 4.5 V	±5.3

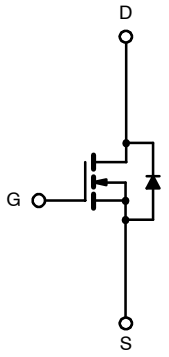
TrenchFET® Power MOSFETs

1206-8 ChipFET™



Bottom View





N-Channel MOSFET

Ordering Information: Si5402DC-T1

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C UNLESS OTHERWISE NOTED)					
Parameter		Symbol	5 secs	Steady State	Unit
Drain-Source Voltage		V_{DS}	30		V
Gate-Source Voltage		V_{GS}	±20		
Continuous Drain Current (T_J = 150°C)[a]	T_A = 25°C	I_D	±6.7	±4.9	A
	T_A = 85°C		±4.8	±3.5	
Pulsed Drain Current		I_{DM}	±20		
Continuous Source Current (Diode Conduction)[a]		I_S	2.1	1.1	
Maximum Power Dissipation[a]	T_A = 25°C	P_D	2.5	1.3	W
	T_A = 85°C		1.3	0.7	
Operating Junction and Storage Temperature Range		T_J, T_{stg}	−55 to 150		°C
Soldering Recommendations (Peak Temperature)[b, c]			260		

THERMAL RESISTANCE RATINGS					
Parameter		Symbol	Typical	Maximum	Unit
Maximum Junction-to-Ambient[a]	t ≤ 5 sec	R_{thJA}	40	50	°C/W
	Steady State		80	95	
Maximum Junction-to-Foot (Drain)	Steady State	R_{thJF}	15	20	

Notes
a. Surface Mounted on 1" x 1" FR4 Board.
b. See Reliability Manual for profile. The ChipFET is a leadless package. The end of the lead terminal is exposed copper (not plated) as a result of the singulation process in manufacturing. A solder fillet at the exposed copper tip cannot be guaranteed and is not required to ensure adequate bottom side solder interconnection.
c. Rework Conditions: manual soldering with a soldering iron is not recommended for leadless components.