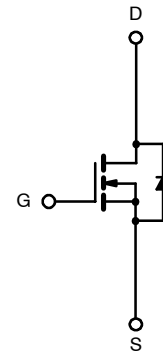
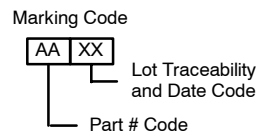
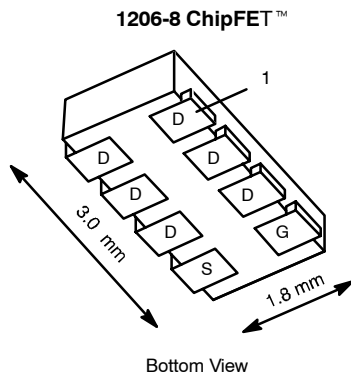




N-Channel 30-V (D-S) MOSFET

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



N-Channel MOSFET

Ordering Information: Si5402DC-T1

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ 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 ($T_J = 150^\circ\text{C}$) ^a	$T_A = 25^\circ\text{C}$	I_D	± 6.7	± 4.9	A
	$T_A = 85^\circ\text{C}$		± 4.8	± 3.5	
Pulsed Drain Current		I_{DM}	± 20		
Continuous Source Current (Diode Conduction) ^a		I_S	2.1	1.1	W
Maximum Power Dissipation ^a	$T_A = 25^\circ\text{C}$	P_D	2.5	1.3	
	$T_A = 85^\circ\text{C}$		1.3	0.7	
Operating Junction and Storage Temperature Range		T_J, T_{stg}	-55 to 150		$^\circ\text{C}$
Soldering Recommendations (Peak Temperature) ^{b, c}			260		

THERMAL RESISTANCE RATINGS					
Parameter		Symbol	Typical	Maximum	Unit
Maximum Junction-to-Ambient ^a	$t \leq 5$ sec	R_{thJA}	40	50	$^\circ\text{C}/\text{W}$
	Steady State		80	95	
Maximum Junction-to-Foot (Drain)	Steady State	R_{thJF}	15	20	

Notes

- Surface Mounted on 1" x 1" FR4 Board.
- 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.
- Rework Conditions: manual soldering with a soldering iron is not recommended for leadless components.