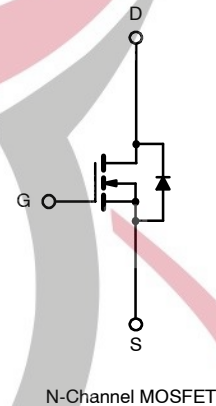
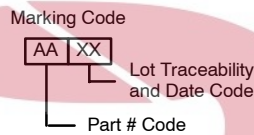
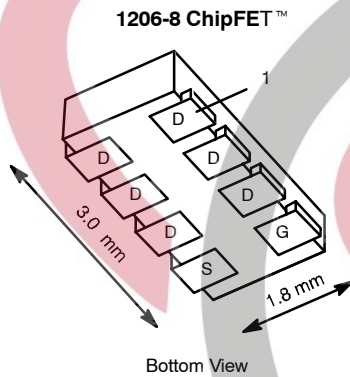


## N-Channel 30-V (D-S) MOSFET

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

**TrenchFET<sup>®</sup>**  
Power MOSFETs



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		$V_{GS}$	$\pm 20$		
Continuous Drain Current ( $T_J = 150^\circ\text{C}$ ) <sup>a</sup>	$T_A = 25^\circ\text{C}$	$I_D$	$\pm 6.7$	$\pm 4.9$	A
	$T_A = 85^\circ\text{C}$		$\pm 4.8$	$\pm 3.5$	
Pulsed Drain Current		$I_{DM}$	$\pm 20$		
Continuous Source Current (Diode Conduction) <sup>a</sup>		$I_S$	2.1	1.1	W
Maximum Power Dissipation <sup>a</sup>	$T_A = 25^\circ\text{C}$	$P_D$	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) <sup>b, c</sup>			260		

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