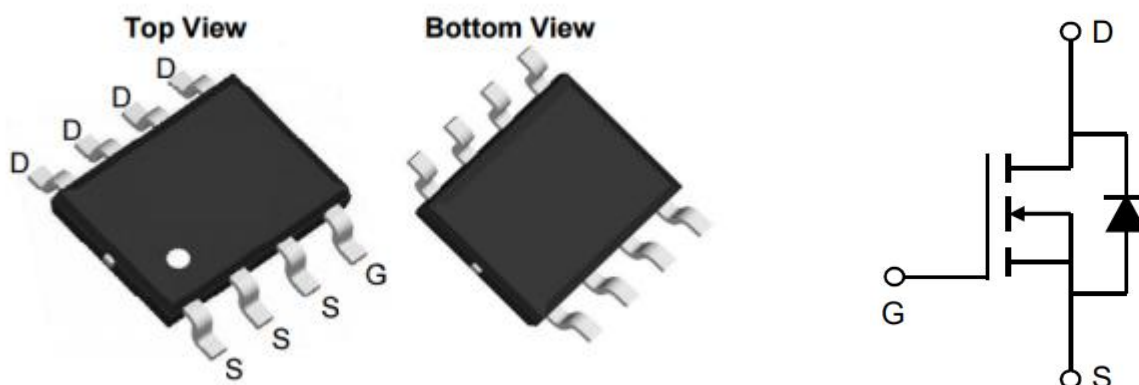




General Description DP170N03 uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge with a 20V gate rating. This device is suitable for use as a load switch or in PWM applications. * RoHS and Halogen-Free Complaint	Product Summary <table> <tr> <td>V_{DS}</td><td>30 V</td></tr> <tr> <td>I_D (at $V_{GS}=20V$)</td><td>13A</td></tr> <tr> <td>$R_{DS(ON)}$ (at $V_{GS} = 10V$)</td><td>< 10.5mΩ</td></tr> <tr> <td>$R_{DS(ON)}$ (at $V_{GS} = 4.5V$)</td><td>< 12mΩ</td></tr> </table>	V_{DS}	30 V	I_D (at $V_{GS}=20V$)	13A	$R_{DS(ON)}$ (at $V_{GS} = 10V$)	< 10.5m Ω	$R_{DS(ON)}$ (at $V_{GS} = 4.5V$)	< 12m Ω
V_{DS}	30 V								
I_D (at $V_{GS}=20V$)	13A								
$R_{DS(ON)}$ (at $V_{GS} = 10V$)	< 10.5m Ω								
$R_{DS(ON)}$ (at $V_{GS} = 4.5V$)	< 12m Ω								

SOP-8



Absolute Maximum Ratings $T_A=25^{\circ}C$ unless otherwise noted

Parameter	Symbol	P-Channel	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current-Continuous @ $T_J=25^{\circ}C$	I_D	13	A
Pulsed ^b	I_{DM}	100	A
Drain-Source Diode Forward Current ^a	I_S	4.0	A
Avalanche energy, single pulse ($L=0.5mH$, $R_g=25\Omega$)	EAS	54	mJ
Maximum Power Dissipation ^a	P_D	3.1	W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 To 150	$^{\circ}C$

Thermal Characteristic

Parameter	Symbol	Limit	Unit
Thermal Resistance, Junction-to-Ambient ^a	$R_{\theta JA}$	60	$^{\circ}C/W$