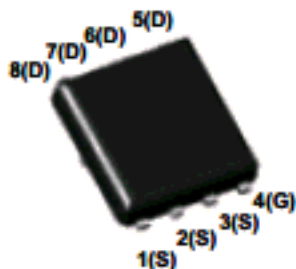


General Description

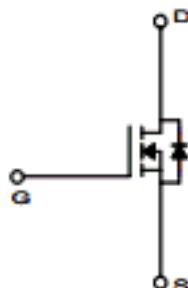
The MDU2657 uses advanced MagnaChip's MOSFET Technology, which provides high performance in on-state resistance, fast switching performance and excellent quality. MDU2657 is suitable device for DC/DC Converter and general purpose applications.

Features

- $V_{DS} = 30V$
- $I_D = 61.7A$ @ $V_{GS} = 10V$
- $R_{DS(on)}$
 $< 7.5m\Omega$ @ $V_{GS} = 10V$
 $< 11.3m\Omega$ @ $V_{GS} = 4.5V$
- 100% UIL Tested
- 100% Rg Tested



PowerDFN56

Absolute Maximum Ratings ($T_a = 25^{\circ}C$)

Characteristics		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	30	V
Gate-Source Voltage		V_{GS}	± 20	V
Continuous Drain Current ⁽¹⁾	$T_C = 25^{\circ}C$	I_D	61.7	A
	$T_C = 70^{\circ}C$		49.3	
	$T_A = 25^{\circ}C$		20.4 ⁽²⁾	
	$T_A = 70^{\circ}C$		16.3 ⁽²⁾	
Pulsed Drain Current		I_{DM}	100	A
Power Dissipation	$T_C = 25^{\circ}C$	P_D	50	W
	$T_C = 70^{\circ}C$		32	
	$T_A = 25^{\circ}C$		5.5 ⁽²⁾	
	$T_A = 70^{\circ}C$		3.5 ⁽²⁾	
Single Pulse Avalanche Energy ⁽¹⁾		E_{AS}	81	mJ
Junction and Storage Temperature Range		T_J, T_{stg}	-55-150	$^{\circ}C$

Thermal Characteristics

Characteristics	Symbol	Rating	Unit
Thermal Resistance, Junction-to-Ambient ⁽¹⁾	$R_{\theta JA}$	22.7	$^{\circ}C/W$
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	2.5	



产品名称：Line Up for 30V MOSFET for

料号备选：Line Up for 30V MOSFET for Computing

- Lowest $R_{DS(ON)}$ for minimum power dissipation
- Lowest Qg for minimum switching losses
- dv/dt shoot-thru immunity
- Improved thermal management with higher current capability

PKG	Product ID	Configuration	V_{DS} (V)	V_{GS} (V)	$I_{DS}(A)$ (25°C)	Type	$P_D(W)$	$R_{(DS(ON))}$ (mΩ max) at $V_{GS}=10V / 4.5V$		Qg (nC)10V
PowerFlat	MDU2651	Single	30	±20	150	N	100	1.2	2.4	138
	MDU2652	Single	30	±20	100	N	80	2.5	3.4	69.8
	MDU2653	Single	30	±20	90	N	70	3.5	4.6	52.4
	MDU2654	Single	30	±20	80	N	55	5	7.6	36.6
	MDU2655	Single	30	±20	52	N	40	8	10.7	19.5
	MDU2656	Single	30	±20	43	N	30	10	12.3	15.8
SO-8	MDS1556	Single	30	±20	20	N	6	4	5.5	89
	MDS1651	Single	30	±20	11.6	N	3	14	22	22
	MDS1652	Single	30	±20	19	N	6	5.1	7.5	72
	MDS3652	Single	-30	±25	-13	P	2.5	18	30	30
	MDS3653	Single	-30	±25	-13	P	4	9	14	96
D-Pak	MDD1653	Single	30	±20	45	N	50	8.5	14	13.5
	MDD1654	Single	30	±20	50	N	50	6	9.5	17
	MDD1655	Single	30	±20	50	N	50	15	23	17.5