ISF1059
eq STH260N6F6-6

N-Channel Power MOSFET

FEATURES

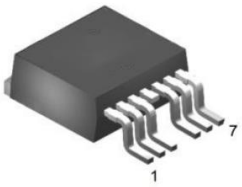
·Drain Current -I_D= 180A@ T_C=25℃

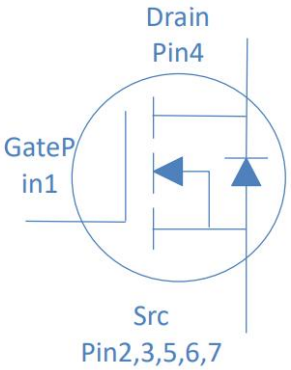
·Drain Source Voltage -V_{DSS}= 60V(Min)

·Static Drain-Source On-Resistance

-$R_{DS(on)}$ = 2.4mΩ(Max)@V_{GS}= 10V

TO-263-7





APPLICATIONS

- Switching applications
- Power tools
- Motor control

Absolute Maximum Ratings(TC=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GSS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous @Tc=25℃ Tc=100℃	180 180	A
I_{DM}	Drain Current-Single Pulsed	720	A
P_D	Total Dissipation @T_C=25℃	300	W
T_{ch}	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature	-55~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	0.5	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	35	℃/W

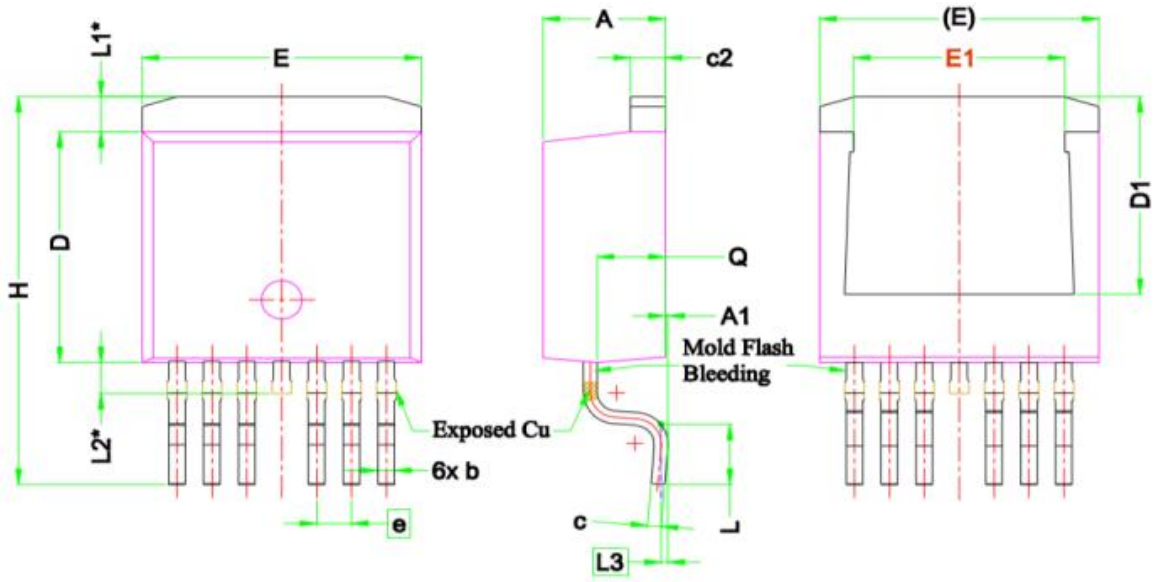
N-Channel Power MOSFET

ELECTRICAL CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 0.25mA	60	--	--	V
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 60V; V_{GS}= 0V;Tj=25℃ V_{DS}= 60V; V_{GS}= 0V; Tj=125℃			1 100	μA
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0V			±100	nA
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= ±30V; I_D=0.25mA	2.0		4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=22.5A		1.7	2.4	mΩ
V_{SD}	Diode forward voltage	I_{SD}= 180A, V_{GS} = 0 V			1.4	V

N-Channel Power MOSFET

Package Dimensions (UNIT: mm):



SYMBOL	DIMENSIONS		
	MIN.	NOM.	MAX.
A	4.24	4.44	4.64
A1	0.00	0.10	0.25
b	0.50	0.60	0.70
c	0.40	0.50	0.60
c2	1.15	1.27	1.40
D	8.82	8.92	9.02
D1	6.86	7.65	---
E	9.96	10.16	10.36
E1	6.89	7.77	7.89
e	1.27 BSC		
H	14.61	15.00	15.88
L	1.78	2.32	2.79
L1	1.36 REF.		
L2	1.20 REF.		
L3	0.25 BSC		
Q	2.30	2.48	2.70

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