

»Features

- Fast Switching Characteristic
- Low Gate Charger
- Small Footprint & Low Profile Package
- RoHS Compliant & Halogen-Free

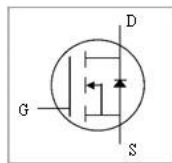
BVDSS	30V
RDS(ON)typ	24mΩ
ID	5.8A

»Description

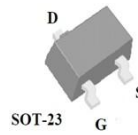
CT3404M is from Coretong innovated design and silicon process technology to achieve the lowest possible on- resistance and fast switching performance. It provides the designer with an extreme efficient device for use in a wide range of

The SOT-23 package is widely preferred for commercial-industrial surface mount applications and suited for low voltage applications such as DC/DC converters.

»Schematic & PIN Configuration



SOT-23



»Absolute Maximum Ratings@T_j=25°C(unless otherwise specified)

Symbol	Parameter	Rating	Units
V _{DS}	Drain-Source Voltage	30	V
V _{GS}	Gate-Source Voltage	±20	V
I _D @T _A =25°C	Drain Current, V _{GS} @ 10V ₃	5.8	A
I _D @T _A =70°C	Drain Current, V _{GS} @ 10V ₃	4.8	A
I _{DM}	Pulsed Drain Current ¹	30	A
P _D @T _A =25°C	Total Power Dissipation ₃	0.35	W
T _{STG}	Storage Temperature Range	-55 to 150	°C
T _J	Operating Junction Temperature Range	150	°C

»Thermal Data

Symbol	Parameter	Value	Unit
R _{thj-a}	Maximum Thermal Resistance, Junction-ambients	357	°C/W

»Electrical Characteristics@T_j=25 oC(unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V, I _D =250uA	30	-	-	V
RDS(ON)	Static Drain-Source On-Resistance ²	V _{GS} =10V, I _D =5.8A	-	24	30	mΩ
		V _{GS} =4.5V, I _D =4.8A	-	32	42	mΩ
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =250uA	1	1.4	3	V
g _{fs}	Forward Transconductance	V _{DS} =5V, I _D =5.8A	5	-	-	S
I _{DSS}	Drain-Source Leakage Current	V _{DS} =30V, V _{GS} =0V	-	-	1	uA
I _{GSS}	Gate-Source Leakage	V _{GS} =±20V, V _{DS} =0V	-	-	±100	nA
t _{d(on)}	Turn-on Delay Time	V _{DS} =15V I _D =1A R _G =3Ω V _{GS} =10V	-	6	-	ns
t _r	Rise Time		-	3.1	-	ns
t _{d(off)}	Turn-off Delay Time		-	15.1	-	ns
t _f	Fall Time		-	2.7	-	ns
C _{iss}	Input Capacitance	V _{GS} =0V	-	-	820	pF
C _{oss}	Output Capacitance	V _{DS} =25V	-	118	-	pF
Crss	Reverse Transfer Capacitance	f=1.0MHz	-	85	-	pF

»Source-Drain Diode

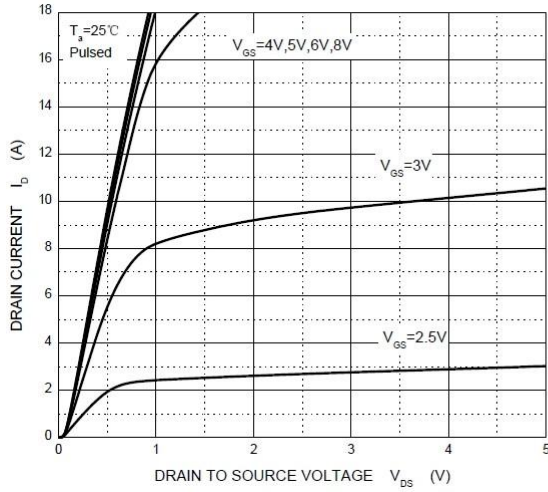
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
V _{SD}	Forward On Voltage ²	I _S =1A, V _{GS} =0V	-	-	1	V

Notes:

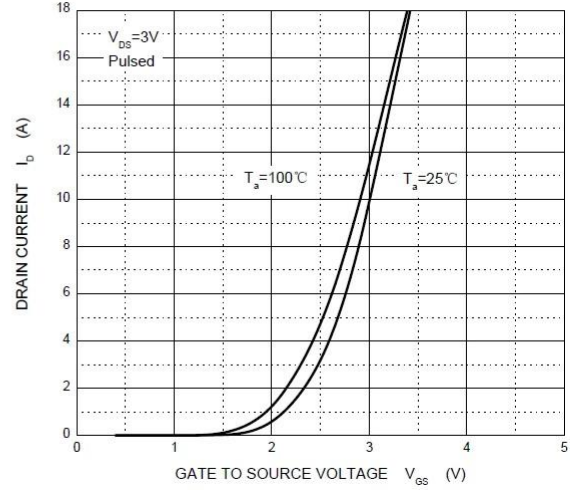
- 1.Pulse width limited by Max. junction temperature.
- 2.Pulse test
- 3.Surface mounted on 1 in² 2oz copper pad of FR4 board, t ≤10sec ; 300°C/W when mounted on min. copper pad.

»Typical Performance Characteristics

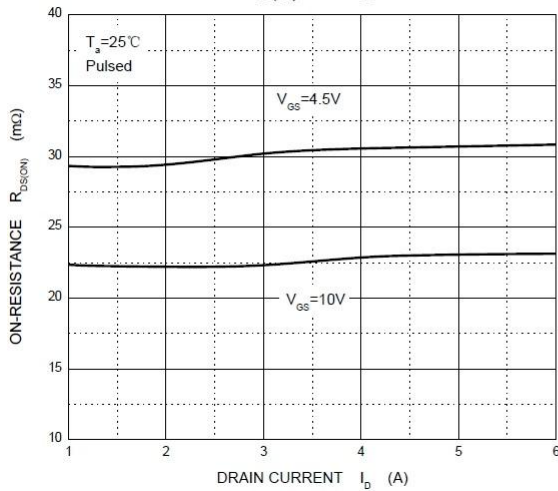
Output Characteristics



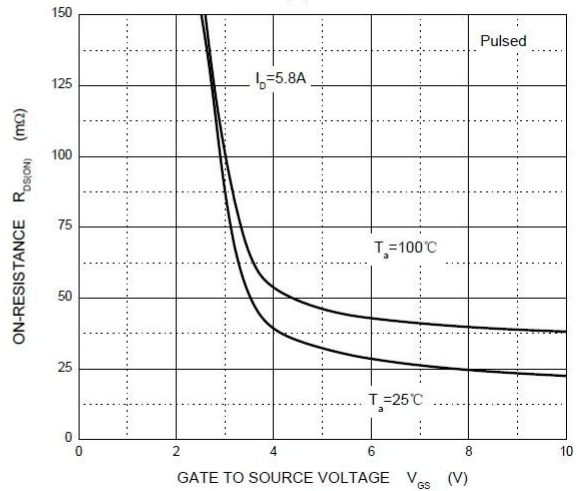
Transfer Characteristics



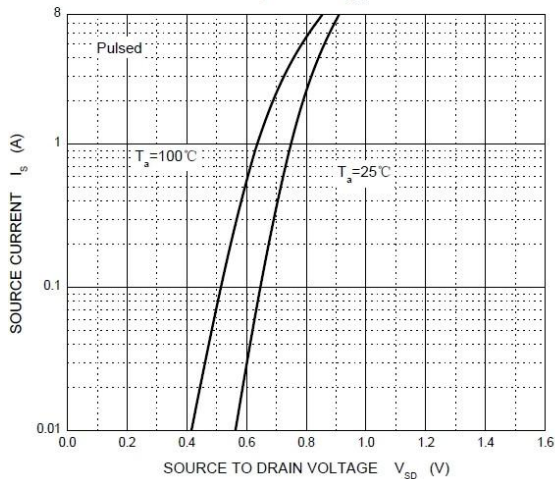
$R_{DS(ON)}$ — I_D



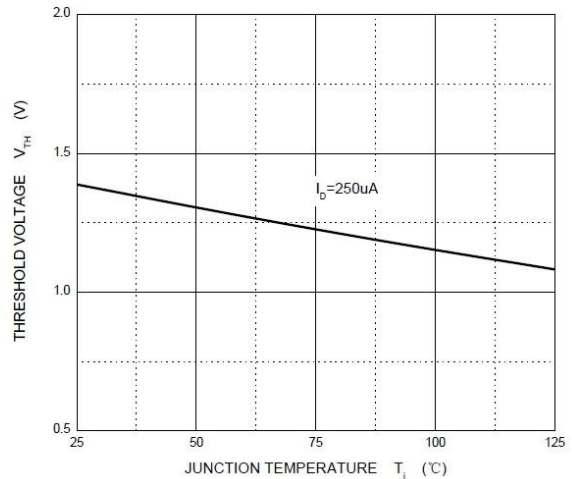
$R_{DS(ON)}$ — V_{GS}



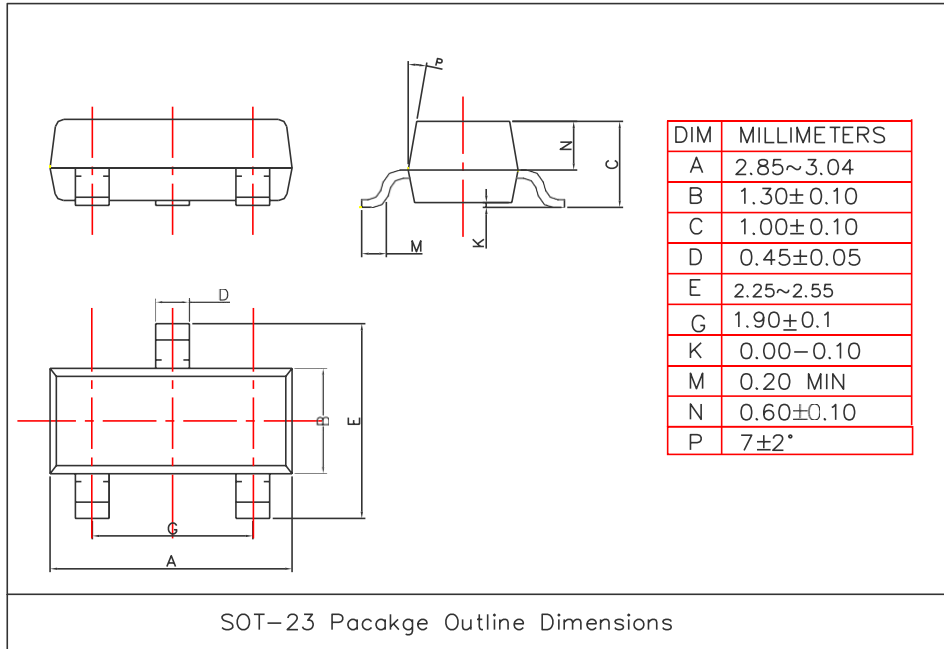
I_S — V_{SD}



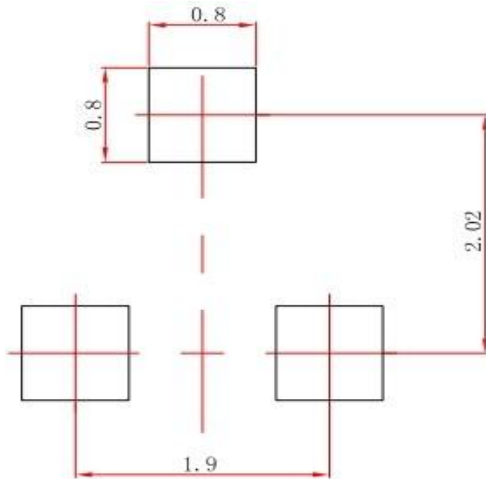
Threshold Voltage



»Package Outline : SOT-23



»SOT-23 FOOTPRINT:(mm)



»Ordering information

Order code	Package	Base qty	Delivery mode
CT3404M	SOT-23	3k	Tape and reel