SOT-23 N MOS

N-CHANNEL MOSFET in a SOT-23 Plastic Package.

SOT-23

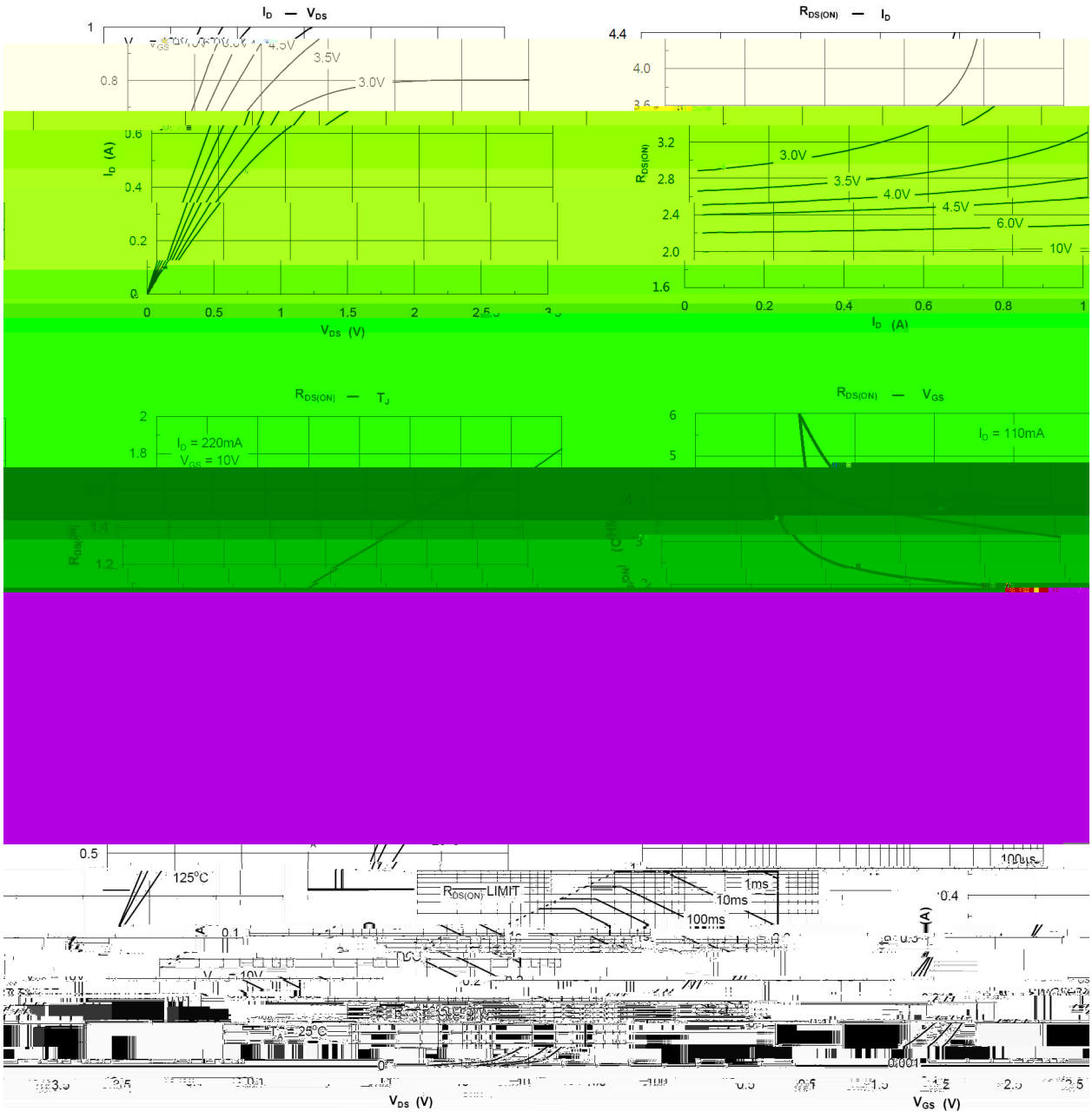
Low $R_{DS(on)}$,rugged and reliable, compact industry standard SOT-23 surface mount package, HF product.

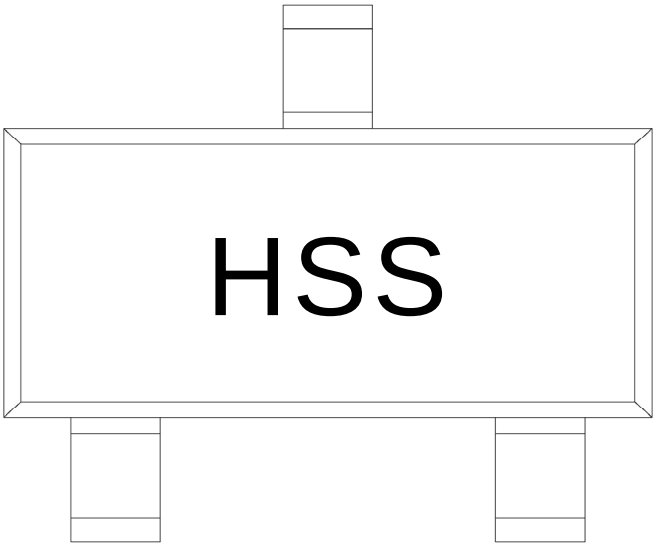
MOSFET

Low current applications such as small servo motor control, power MOSFET gate drivers, and other switching applications.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	50	V
Gate-Source Voltage	V_{GSS}	±20	V
Drain Current – Continuous	I_D	220	mA
Peak Drain Current	I_{DM}	880	mA
Power Dissipation	P_D	360	mW
Thermal Resistance, Junction-to-Ambient	R_{dJA}	350	/W
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	V_{DSS}	V_{GS}=0V	I_D=250εA	50			V
Zero Gate Voltage Drain Current	$I_{DSS(1)}$	V_{GS}=0	V_{DS}=50V			0.5	εA
	$I_{DSS(2)}$	V_{GS}=0	V_{DS}=30V			0.1	εA
Gate–Body Leakage.	I_{GSS}	V_{DS}=0V	V_{GS}=±20			±10	εA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}	I_D=1.0mA	0.8	1.6	2.2	V
Static Drain–Source On–Resistance	$R_{DS(on)(1)}$	V_{GS}=10V	I_D=220mA		1.9	3.5	q
	$R_{DS(on)(2)}$	V_{GS}=4.5V	I_D=220mA		2.5	6.0	q
Forward Transconductance	g_{FS}	V_{DS}=10V	I_D=220mA	0.12	0.5		S
Drain–Source Diode Forward Voltage	V_{SD}	V_{GS}=0V	I_S=440mA		0.8	1.4	V
Input Capacitance	C_{iss}	V_{DS}=10V f=1.0MHz	V_{GS}=0V			50	pF
Output Capacitance	C_{oss}					25	
Reverse Transfer Capacitance	C_{rss}					8	
Gate Resistance	R_G	V_{GS}=15mV	f=1.0MHZ		9		q
Turn–On Delay Time	$t_{d(on)}$	V_{DD}=30V V_{GS}=10V	I_D=290mA R_{GEN}=25q		2.5	5	ns
Turn–On Rise Time	t_r				9	18	ns
Turn–Off Delay Time	$t_{d(off)}$				20	36	ns
Turn–Off Fall Time	t_f				7	14	ns


I_D — V_DS
R_DS(ON) — I_D
3.5V
3.0V
I_D (A)
V_DS (V)
3.0V
3.5V
4.0V
4.5V
6.0V
10V
I_D (A)
R_DS(ON) — T_J
I_D = 220mA
V_GS = 10V
R_DS(ON) — V_GS
I_D = 110mA
125°C
R_DS(ON) LIMIT
1ms
10ms
100ms
100µs
V_DS (V)
V_GS (V)



H

SS

Note:

H: Company Code

SS: Product Type Code

Temperature Profile for IR Reflow Soldering(Pb-Free)



			Note:
1	150 180	60 90sec;	1.Preheating:150~180 , Time:60~90sec.
2	245±5	5±0.5sec;	2.Peak Temp.:245±5 , Duration:5±0.5sec.
3		2 10 /sec.	3. Cooling Speed: 2~10 /sec.

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

/ REEL

Package Type	Units	Dimension	(unit mm³)