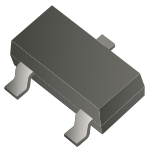


CMS3407-P2-HF

P-Channel
RoHS Device
Halogen Free



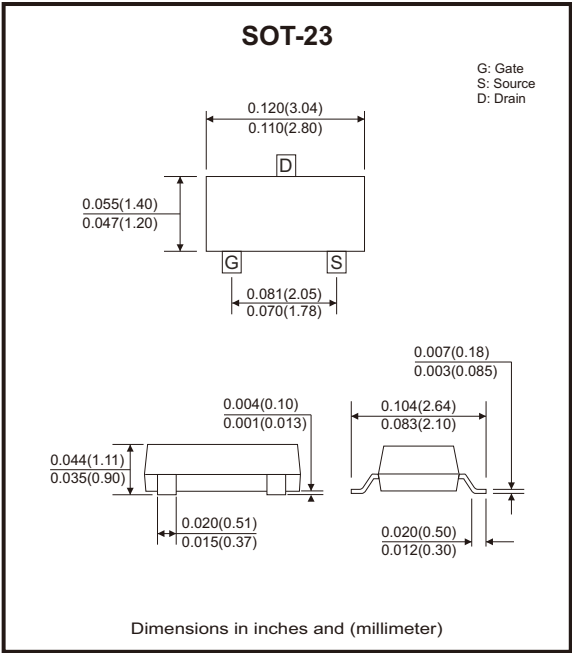
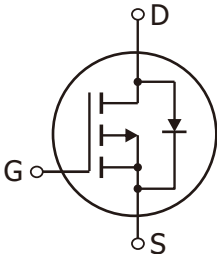
Features

- Surface mount package.
- High power and current handling capability.

Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.

Circuit Diagram



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-source voltage	V_{DS}	-30	V
Gate-source voltage	V_{GS}	±20	V
Continuous drain current	I_D	-4.1	A
Pulsed drain current @ $t_p=10\mu s$	I_{DM}	-15	A
Power dissipation (Note 1)	P_D	1.3	W
Thermal resistance junction to ambient (Note 1)	$R_{\theta JA}$	96.2	°C/W
Junction temperature	T_J	150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Notes: 1. Device mounted on 1" x 1" FR-4 PCB with high coverage 2oz copper, double sided. copper, $t \leq 10s$.

Electrical Characteristics (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	BV _{DSS}	V _{GS} = 0V, I _D = -250μA	-30			V
Gate threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-1	-1.4	-3	V
Zero gate voltage drain current	I _{DSS}	V _{DS} = -24V, V _{GS} = 0V			-1	μA
Gate-body leakage current	I _{GSS}	V _{GS} = ±12V, V _{DS} = 0V			±100	nA
Drain-source on-resistance (Note 1)	R _{DS(on)}	V _{GS} = -10V, I _D = -4.1A		50	60	mΩ
	R _{DS(on)}	V _{GS} = -4.5V, I _D = -3A		68	87	mΩ
Forward transconductance (Note 1)	g _{fs}	V _{DS} = -5V, I _D = -4A	5.5			S
Diode forward voltage (Note 1)	V _{SD}	V _{GS} = 0V, I _S = -1A			-1	V
Dynamic Characteristics (Note 2)						
Input capacitance	C _{iss}	V _{DS} = -15V, V _{GS} = 0V, f = 1MHz		700		pF
Output capacitance	C _{oss}			120		
Reverse transfer capacitance	C _{rss}			75		
Switching Characteristics (Note 2)						
Turn-on delay time	t _{d(on)}	V _{DS} = -15V, R _L = 3.6Ω, V _{GS} = -10V, R _{GEN} = 3Ω		8.6		ns
Turn-on rise time	t _r			5.0		
Turn-off delay time	t _{d(off)}			28.2		
Turn-off fall time	t _f			13.5		

Notes: 1. Pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$.
 2. These parameters have no way to verify.

Typical Rating and Characteristic Curves (CMS3407-P2-HF)

Fig.1 - Output Characteristics

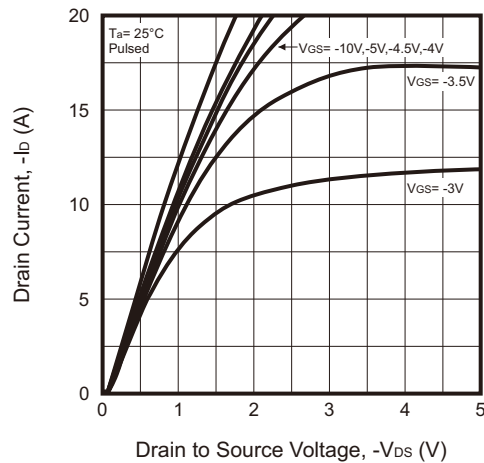


Fig.2 - Transfer Characteristics

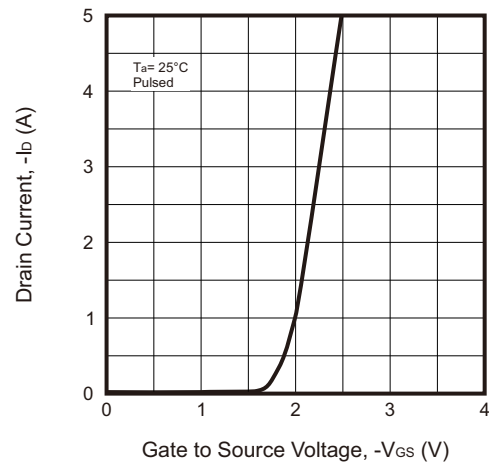


Fig.3 - On-Resistance vs. Drain Current

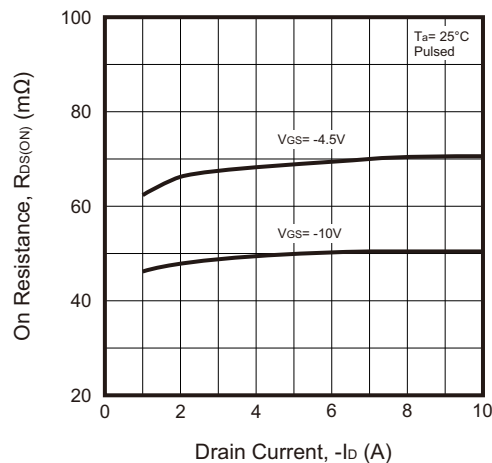


Fig.4 - On-Resistance vs. Gate to Source Voltage

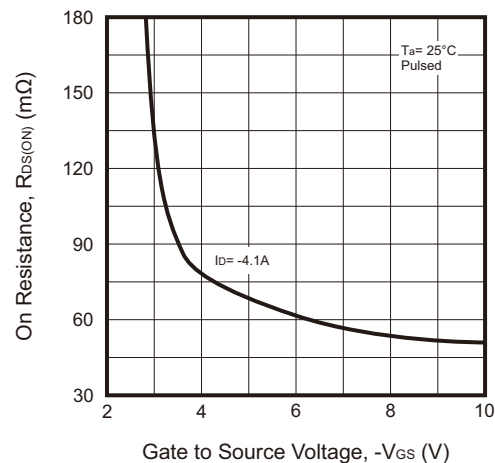
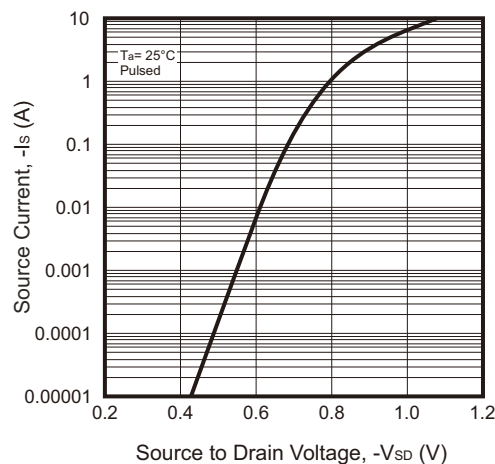
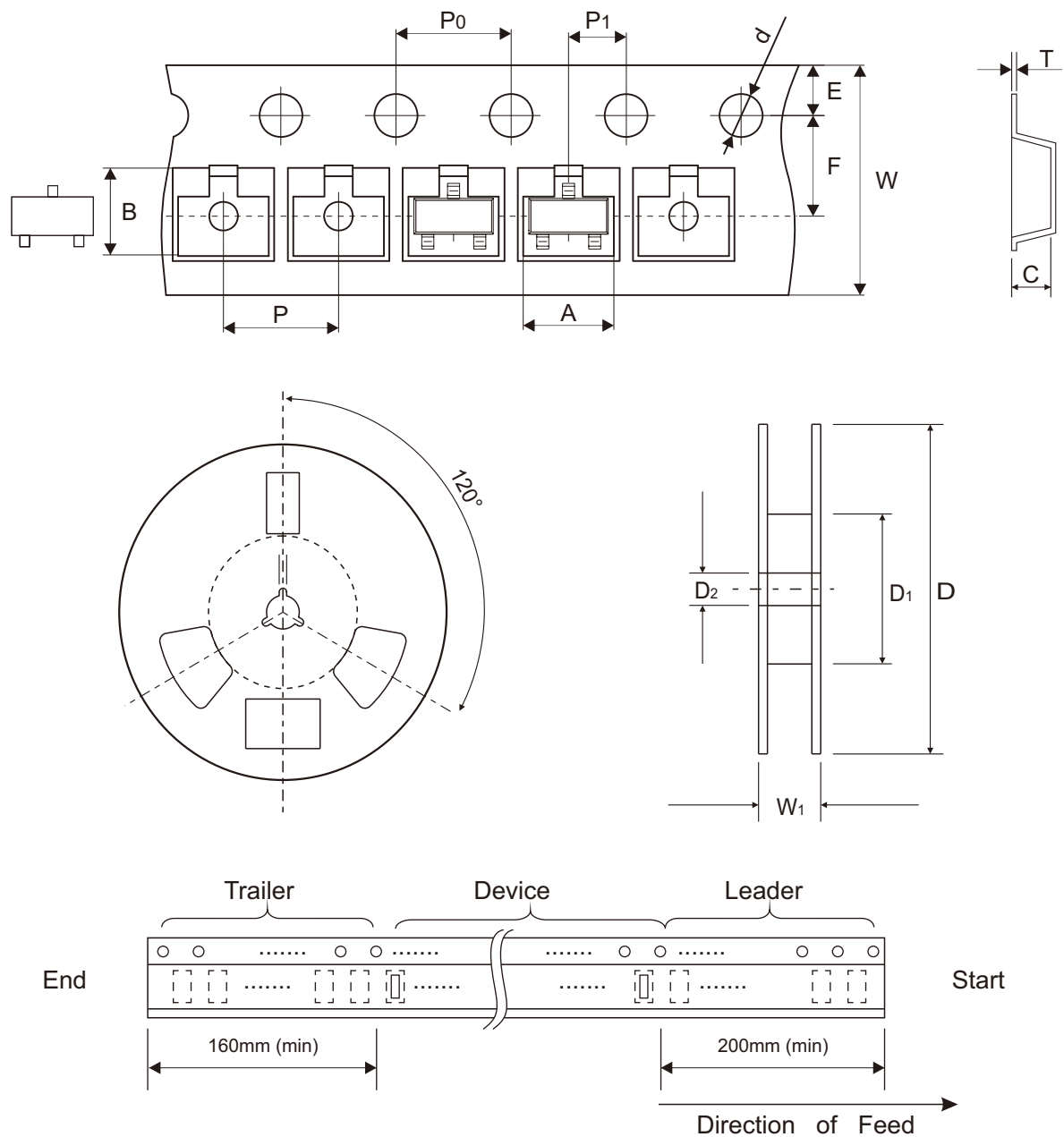


Fig.6 - I_S — V_{SD}



Reel Taping Specification

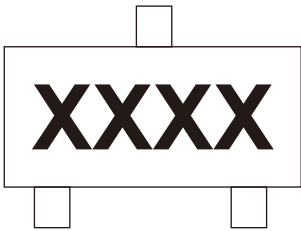


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 + 0.08 - 0.10	1.50 + 0.10 - 0.00	178.00 ± 2.00	50.00 ± 0.50	13.00 ± 0.25
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 + 0.003 - 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.079	1.969 ± 0.020	0.512 ± 0.010

SOT-23	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	8.00 + 0.30 - 0.10	9.50 ± 0.50
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.374 ± 0.020

Marking Code

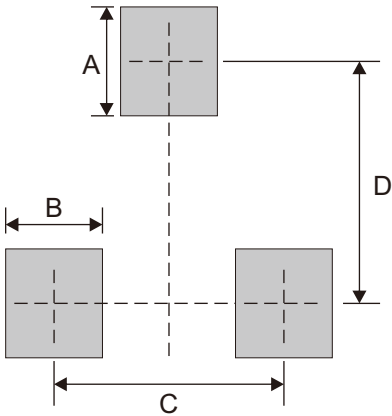
Part Number	Marking Code	
CMS3407-P2-HF	3407	A79T



XXXX = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	1.90	0.075
D	2.00	0.079



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7