



Si1403CDL vs. Si1403BDL

Description: P-Channel, 20 V (D-S) MOSFET**Package:** SC70-6**Pin Out:** Identical**Part Number Replacements:** Si1403CDL-T1-GE3 replaces Si1403BDL-T1-E3
Si1403CDL-T1-GE3 replaces Si1403BDL-T1-GE3**ABSOLUTE MAXIMUM RATINGS** ($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise noted)

PARAMETER	SYMBOL	Si1403CDL	Si1403BDL	UNIT
Drain-Source Voltage	V_{DS}	- 20	- 20	V
Gate-Source Voltage	V_{GS}	± 12	± 12	
Continuous Drain Current	I_D	- 1.6	- 1.5	A
		- 1.3	- 1.2 ^a	
Pulsed Drain Current	I_{DM}	- 5	- 5	
Continuous Source Current (MOSFET Diode Conduction)	I_S	- 0.5	- 0.8	
Power Dissipation	P_D	0.6	0.625	W
		0.4	0.4 ^a	
Operating Junction and Storage Temperature Range	T_J and T_{stg}	- 55 to 150	- 55 to 150	$^{\circ}\text{C}$
Maximum Junction-to-Ambient	R_{thJA}	220	200	$^{\circ}\text{C}/\text{W}$

SPECIFICATIONS ($T_J = 25\text{ }^{\circ}\text{C}$, unless otherwise noted)

PARAMETER		SYMBOL	Si1403CDL			Si1403BDL			UNIT
			MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
Static									
Gate-Threshold Voltage		V _{GS(th)}	- 0.6		- 1.5	- 0.6		- 1.3	V
Gate-Body Leakage		I _{GSS}			± 100			± 100	nA
Zero Gate Voltage Drain Current		I _{DSS}			- 1			- 1	µA
On-State Drain Current	V _{GS} = - 4.5 V	I _{D(on)}	- 2			- 2			A
Drain-Source On-Resistance	V _{GS} = - 4.5 V	R _{DS(on)}		0.116	0.140		0.120	0.150	Ω
	V _{GS} = - 3.6 V			0.133	0.160		0.140	0.175	
	V _{GS} = - 2.5 V			0.177	0.222		0.220	0.265	
Forward Transconductance		g _{fs}		5			3.4		S
Diode Forward Voltage		V _{SD}		- 0.83	- 1.2		- 0.8	- 1.1	V
Dynamic									
Total Gate Charge		Q _g		4	8		2.9	4.5	nC
Gate-Source Charge		Q _{gs}		0.7			0.65		
Gate-Drain Charge		Q _{gd}		1.4			1		
Gate Resistance		R _g	2	7	14		9		Ω

Notea. $T_A = 85\text{ }^{\circ}\text{C}$ instead of $70\text{ }^{\circ}\text{C}$.

Specification comparisons are supplied as a courtesy to compare two devices and do not constitute a commercial product datasheet or any guarantee of identical performance. Designers should refer to the appropriate datasheets of the same number for guaranteed specification limits.