



Si1034CX vs. Si1034X

Description: Dual N-Channel, 20 V (D-S) MOSFET

Package: SC89-6

Pin Out: Identical

Part Number Replacements: Si1034CX-T1-GE3 replaces Si1034X-T1-GE3

ABSOLUTE MAXIMUM RATINGS ($T_A = 25\text{ }^\circ\text{C}$, unless otherwise noted)				
PARAMETER	SYMBOL	Si1034CX	Si10.34X	UNIT
Drain-Source Voltage	V_{DS}	20	20	V
Gate-Source Voltage	V_{GS}	± 8	± 5	
Continuous Drain Current	$T_A = 25\text{ }^\circ\text{C}$	0.61	0.19	A
	$T_A = 70\text{ }^\circ\text{C}$	0.49	0.14 ^a	
Pulsed Drain Current	I_{DM}	2	0.65	
Continuous Source Current (MOSFET Diode Conduction)	I_S	0.18	0.45	
Power Dissipation	$T_A = 25\text{ }^\circ\text{C}$	0.22	0.28	W
	$T_A = 70\text{ }^\circ\text{C}$	0.14	0.145 ^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}	565	NS	$^\circ\text{C/W}$

SPECIFICATIONS ($T_J = 25\text{ }^\circ\text{C}$, unless otherwise noted)								
PARAMETER	SYMBOL	Si1034CX			Si1034X			UNIT
		MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
Static								
Gate-Threshold Voltage	$V_{GS(th)}$	0.4		1	0.4		1.2	V
Gate-Body Leakage	I_{GSS}			± 1			± 3	nA
Zero Gate Voltage Drain Current	I_{DSS}			1			0.5	μA
On-State Drain Current	$V_{GS} = 4.5\text{ V}$ $I_{D(on)}$	2			0.25			A
Drain-Source On-Resistance	$V_{GS} = 4.5\text{ V}$ $R_{DS(on)}$		0.330	0.396			5	Ω
	$V_{GS} = 2.5\text{ V}$		0.380	0.456			7	
	$V_{GS} = 1.8\text{ V}$		0.420	0.546			9	
	$V_{GS} = 1.5\text{ V}$		0.505	0.760			10	
Forward Transconductance	g_{fs}		7.5			0.5		S
Diode Forward Voltage	V_{SD}		0.8	1.2			1.2	V

Notes

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

NS denotes not specified in original specification.

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.