SUP75P03-07 vs. SUP75P03-08

Description: **P-Channel, 30 V (D-S) 175 °C MOSFET**
Package: **TO-220**
Pin Out: **Identical**

Part Number Replacements

SUP75P03-07-E3 Replaces SUP75P03-08-E3
SUP75P03-07 Replaces SUP75P03-08

ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C, unless otherwise noted)					
Parameter		**Symbol**	**SUP75P03-07**	**SUP75P03-08**	**Unit**
Drain-Source Voltage		V_{DS}	- 30	- 30	V
Gate-Source Voltage		V_{GS}	± 20	± 20	
Continuous Drain Current	T_C = 25 °C	I_D	- 75	- 75	A
	T_C = 125 °C		- 65	- 65	
Pulsed Drain Current		I_{DM}	- 240	- 200	
Power Dissipation	T_C = 25 °C	P_D	187	250	W
Operating Junction and Storage Temperature Range		T_j and T_{stg}	- 55 to 175	- 55 to 175	°C
Maximum Junction-to-Ambient		R_{thJA}	62.5	62.5	°C/W

SPECIFICATIONS (T_J = 25 °C, unless otherwise noted)									
Parameter		**Symbol**	**SUP75P03-07**			**SUP75P03-08**			**Unit**
			Min	**Typ**	**Max**	**Min**	**Typ**	**Max**	
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 1		- 3	- 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} = - 10 V	$I_{D(on)}$	- 120			- 120			A
Drain-Source On-Resistance	V_{GS} = - 10 V	$r_{DS(on)}$		0.0055	0.007			0.008	Ω
	V_{GS} = - 4.5 V			0.008	0.010			NS	
Forward Transconductance		g_{fs}	20			30			S
Diode Forward Voltage		V_{SD}		- 1.2	- 1.5		- 1.1	- 1.4	V
Dynamic									
Total Charge		Q_g		160	240		115	140	nC
Gate-Source Charge		Q_{gs}		32			30		
Gate-Drain Charge		Q_{gd}		30			10		
Switching									
Turn-On Time		$t_{d(on)}$		25	40		10	20	ns
		t_r		225	360		16	30	
Turn-Off Time		$t_{d(off)}$		150	240		140	200	
		t_f		210	340		80	140	
Source-Drain Reverse Recovery Time		t_{rr}		55	100		60	100	

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.