onsemi

Product Bulletin Document #:PB26436Z

Issue Date:12 Sep 2024

Title of Change:	Addition of Rthjc and revision of maximum current & power ratings in the datasheet of NVTFWS012P03P8ZTAG				
Effective date:	12 Sep 2024				
Contact information:	Contact your local onsemi Sales Office or Sarmila.Kamalanathan@onsemi.com				
Type of notification:	This Product Bulletin is for notification purposes only. onsemi will proceed with implementation of this change upon publication of this Product Bulletin.				
Change Category:	Datasheet update				
Change Sub-Category(s):	Datasheet/Product Doc change				
Sites Affected:					
onsemi Sites		External Foundry/Subcon Sites			
None		None			

Description and Purpose:

This Product Bulletin is to announce that onsemi is updating maximum current, continuous current and power dissipation ratings and adding $R_{\theta JC}$ values in product datasheet for NVTFWS012P03P8ZTAG. There is no change to the product BOM and assembly process. There is no product marking change.

			Symbol	Value	Unit			Darar	neter		Symbol	Value	Unit
Parameter Drain-to-Source Voltage		V _{DSS}	-30	V			Parameter Drain-to-Source Voltage		V _{DSS}	-30	V		
			+25	v							V		
Continuous Drain		Steady T _A = 25°C		-11.7	A			0		T 25°C			A
Current R _{0JA} (Notes 1, 3)	State	T _A = 85°C	_	-8.4				Current R _{0JA} (Notes 1, 3)	State	$T_A = 25 \text{ C}$ $T_A = 85^{\circ}\text{C}$	סי	-8.4	Î
Power Dissipation $R_{\theta JA}$ (Notes 1, 3)		T _A = 25°C	PD	2.40	W			Power Dissipation $R_{\theta JA}$ (Notes 1, 3)		T _A = 25°C	PD	2.40	w
Continuous Drain	Steady State	$T_A = 25^{\circ}C$	ID	-7.0	Α		Continuous Drain Current R _{0JC}		Steady T _C = 25°C	Ι _D	-49	Α	
(Notes 2, 3)		$T_A=85^\circ C$		-5.1				State	T _C = 85°C		-38	1	
Power Dissipation		$T_A = 25^{\circ}C$	PD	0.86	W		1	Power Dissipation R _{8JC}		$T_{C} = 25^{\circ}C$	PD	44	w
Pulsed Drain Current	T _Δ = 25	°C, t _n = 10 µs	Ірм	47	A			Pulsed Drain Current	T _A = 25	°C, t _p = 10 μs	I _{DM}	47	Α
Operating Junction and Range	Operating Junction and Storage Temperature		T _J , T _{stg}	-55 to +175	°C			Operating Junction and Range	and Storage Temperature		T _J , T _{stg}	–55 to +175	°C
				260	°C						TL	260	°C
THERMAL RESIST			RATING	S (Note	1)			THERMAL RESIST	ANCE M	AXIMUM RA	TINGS (No	ote 1)	
1			· · ·		·	Unit		Parameter		Symbol	Value	Un	
Junction-to-Ambient - Steady State (Note		-,					Junction-to-Ambient - Steady State (Note 1)			$R_{\theta JA}$	52	2 °C/	
		· .					Junction-to-Ambient -	nbient - Steady State (Note 2)		R _{0JA}	145		
Sunction-to-Ambient	-) <mark>116JA</mark> 143				Junction-to-Case		R _{0JC}	_{θJC} 3.3					
-						_	1	N I	-	MAX		MAY	
V _{(BR)DSS}	R _{DS(on)} MAX		(I _D MAX				V(BR)DSS	HDS(on) MAX				
22.14	11.3	11.3 mΩ @ –10 V		V			-30		11.3 mg	2 @ -10 V	/		
		nΩ@-4.5			<u> </u>				20 mΩ @ -4.5 V				
			•										
	Continuous Drain Current R _{0,JA} (Notes 1, 3) Power Dissipation R _{0,JA} (Notes 1, 3) Continuous Drain Current R _{0,JA} (Notes 2, 3) Power Dissipation R _{0,JA} (Notes 2, 3) Pulsed Drain Current Operating Junction and Range Lead Temperature for S (1/8" from case for 10 s THERMAL RESIST Par Junction-to-Ambient	Current R _{0,JA} (Notes 1, 3) State Power Dissipation R _{0,JA} (Notes 1, 3) State Continuous Drain Current R _{0,JA} (Notes 2, 3) Steady State Power Dissipation R _{0,JA} (Notes 2, 3) T _A = 25 Operating Junction and Storage T Range T _A = 25 Lead Temperature for Soldering P (1/8" from case for 10 s) THERMAL RESISTANCE I Parameter Junction-to-Ambient - Steady Junction-to-Ambient - Steady Junction-to-Ambient - Steady V(BR)DSS R ₁ -30 V	$\begin{tabular}{ c c c c c } \hline $V(BR)DSS$ $$Ready $$T_A = 25^\circ C$ $$T_A = 85^\circ C$ $$T_A = 25^\circ C$ $$$T_A = 25^\circ C$ $$$T_A = 25^\circ C$ $$$T_A = 25^\circ C$ $$$T_A = 25^\circ C$ $$$$$$$$$T_A = 25^\circ C$ $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$	$\begin{tabular}{ c c c c c c } \hline V(BR)DSS & RDS (MAC) \\ \hline V(BR)DS & RDS (MAC) \\ \hline V(BR) & RDS (MA$	$\begin{tabular}{ c c c c c c c } \hline Continuous Drain & Steady & T_A = 25^\circ C & I_D & -11.7 \\ \hline Current R_{0,JA} & State & T_A = 85^\circ C & -8.4 \\ \hline T_A = 85^\circ C & P_D & 2.40 \\ \hline R_{0,JA} (Notes 1, 3) & Steady & T_A = 25^\circ C & P_D & 2.40 \\ \hline Current R_{0,JA} & Steady & T_A = 25^\circ C & P_D & 2.40 \\ \hline Current R_{0,JA} & Steady & T_A = 25^\circ C & P_D & 0.86 \\ \hline T_A = 85^\circ C & -5.1 \\ \hline Power Dissipation & Steady & T_A = 25^\circ C & P_D & 0.86 \\ \hline R_{0,JA} (Notes 2, 3) & T_A = 25^\circ C & P_D & 0.86 \\ \hline Pulsed Drain Current & T_A = 25^\circ C, t_p = 10 \ \mu s & I_{DM} & 47 \\ \hline Operating Junction and Storage Temperature & T_J, T_{stg} & -55 \ to & +175 \\ \hline Lead Temperature for Soldering Purposes & T_L & 260 \\ \hline (1/8'' from case for 10 \ s) & THERMAL RESISTANCE MAXIMUM RATINGS (Note $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$



List of Affected Standard Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the **PCN Customized Portal**.

NVTFWS012P03P8ZTAG	