U2 LMV321 TO_SOT_Packages_SMD:SOT-23-5_HandSoldering U1 TL431ACDBZR TO_SOT_Packages_SMD:SOT-23_Handsoldering U3 RT9193-30PB TO_SOT_Packages_SMD:SOT-23_HandSoldering R6 180k Resistors_SMD:R_0603_HandSoldering R4 10k Resistors_SMD:R_0603_HandSoldering R3 100R Resistors_SMD:R_0603_HandSoldering R1 1.8k Resistors_SMD:R_0603_HandSoldering R2 1.8k Resistors_SMD:R_0603_HandSoldering R8 100R Resistors_SMD:R_0603_HandSoldering R8 100R Resistors_SMD:R_0603_HandSoldering R7 180K Resistors_SMD:R_0603_HandSoldering R8 100k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C6 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 10nF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm C5 GS3 Connectors:GS3 C0Nnectors:GS3 C0Nnectors:GS3 C0HW_Logo Symbols:OSHW-Logo_5.7x66mm_SilkScreen	Reference	Value	Footprint
U1 TL431ACDBZR TO_SOT_Packages_SMD:SOT-23_Handsoldering U3 RT9193-30PB TO_SOT_Packages_SMD:SOT-23-5_HandSoldering R6 180k Resistors_SMD:R_0603_HandSoldering R4 10k Resistors_SMD:R_0603_HandSoldering R3 100R Resistors_SMD:R_0603_HandSoldering R1 1.8k Resistors_SMD:R_0603_HandSoldering R2 1.8k Resistors_SMD:R_0603_HandSoldering R8 100R Resistors_SMD:R_0603_HandSoldering R7 180K Resistors_SMD:R_0603_HandSoldering R8 100k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:R_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C1 1uF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 CONN_01X08 Socket_Strip_Straight_1x08_Pitch2.54mm C6 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm C7 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm	U2		•
U3RT9193-30PBTO_SOT_Packages_SMD:SOT-23-5_HandSolderingR6180kResistors_SMD:R_0603_HandSolderingR410kResistors_SMD:R_0603_HandSolderingR3100RResistors_SMD:R_0603_HandSolderingR11.8kResistors_SMD:R_0603_HandSolderingR21.8kResistors_SMD:R_0603_HandSolderingR8100RResistors_SMD:R_0603_HandSolderingR7180KResistors_SMD:R_0603_HandSolderingR510kResistors_SMD:R_0603_HandSolderingR910kResistors_SMD:R_0603_HandSolderingC4100nFCapacitors_SMD:C_0603_HandSolderingC34.7uFCapacitors_SMD:C_0603_HandSolderingC1100nFCapacitors_SMD:C_0603_HandSolderingC64.7nFCapacitors_SMD:C_0603_HandSolderingC510nFCapacitors_SMD:C_0603_HandSolderingC7100nFCapacitors_SMD:C_0603_HandSolderingC7100nFCapacitors_SMD:C_0603_HandSolderingC21uFCapacitors_SMD:C_0603_HandSolderingJ1PT100Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_StraightJ3CONN_01X08Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mmJ5GS3Connectors:GS3J4GS3Connectors:GS3J5Aloes_LogoAloes:Aloes_mini	U1	TL431ACDBZR	
R4 10k Resistors_SMD:R_0603_HandSoldering R3 100R Resistors_SMD:R_0603_HandSoldering R1 1.8k Resistors_SMD:R_0603_HandSoldering R2 1.8k Resistors_SMD:R_0603_HandSoldering R8 100R Resistors_SMD:R_0603_HandSoldering R7 180K Resistors_SMD:R_0603_HandSoldering R5 10k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C7 10nF Capacitors_SMD:C_0603_HandSoldering C7 10nF Capacitors_SMD:C_0603_HandSoldering C8 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 100nF Capacitors_SMD:C_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C6 100nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 10nF Capacitors_SMD:C_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C6 10nF Capacito	U3	RT9193-30PB	TO SOT Packages SMD:SOT-23-5 HandSoldering
R3 100R Resistors_SMD:R_0603_HandSoldering R1 1.8k Resistors_SMD:R_0603_HandSoldering R2 1.8k Resistors_SMD:R_0603_HandSoldering R8 100R Resistors_SMD:R_0603_HandSoldering R7 180K Resistors_SMD:R_0603_HandSoldering R5 10k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C7 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitor	R6	180k	Resistors_SMD:R_0603_HandSoldering
R1 1.8k Resistors_SMD:R_0603_HandSoldering R2 1.8k Resistors_SMD:R_0603_HandSoldering R8 100R Resistors_SMD:R_0603_HandSoldering R7 180K Resistors_SMD:R_0603_HandSoldering R5 10k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 100nP Capacitors_SMD:C_0603_HandSoldering C4 100nP Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C1 100nP Capacitors_SMD:C_0603_HandSoldering C1 100nP Capacitors_SMD:C_0603_HandSoldering C1 100nP Capacitors_SMD:C_0603_HandSoldering C3 10nP Capacitors_SMD:C_0603_HandSoldering C4 10nP Capacitors_SMD:C_0603_HandSoldering C5 10nP Capacitors_SMD:C_0603_HandSoldering C6 4.7nP Capacitors_SMD:C_0603_HandSoldering C7 100nP Capacitors_SMD:C_0603_HandSoldering C7 100nP Capacitors_SMD:C_0603_HandSoldering C7 100nP Capacitors_SMD:C_0603_HandSoldering C9 10nP Capacito	R4	10k	Resistors_SMD:R_0603_HandSoldering
R2 1.8k Resistors_SMD:R_0603_HandSoldering R8 100R Resistors_SMD:R_0603_HandSoldering R7 180K Resistors_SMD:R_0603_HandSoldering R5 10k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 10nF Capacitors_SMD:C_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C6 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 10nF Capacitors_SMD:C_0603_HandSoldering C9 10nF Capacitors_SMD	R3	100R	Resistors_SMD:R_0603_HandSoldering
R8 100R Resistors_SMD:R_0603_HandSoldering R7 180K Resistors_SMD:R_0603_HandSoldering R5 10k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C2 100nF Capacitors_SMD:C_0603_HandSoldering C2 100nF Capacitors_SMD:C_0603_HandSoldering C3 100nF Capacitors_SMD:C_0603_HandSoldering C5 100nF Capacitors_SMD:C_0603_HandSoldering C6 100nF Capacito	R1	1.8k	Resistors_SMD:R_0603_HandSoldering
R7 180K Resistors_SMD:R_0603_HandSoldering R5 10k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 10nF Capacitors_SMD:C_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C6 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 10nF Capacitors_SMD:C_0603_HandSoldering C9 10nF Capacitors_SM	R2	1.8k	Resistors_SMD:R_0603_HandSoldering
R5 10k Resistors_SMD:R_0603_HandSoldering R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 1UF Capacitors_SMD:C_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C6 100nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 100nF Capacitors_SMD:C_0603_HandSoldering C9 100nF Capacitors_SMD:C_0603_Ha	R8	100R	Resistors_SMD:R_0603_HandSoldering
R9 10k Resistors_SMD:R_0603_HandSoldering C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 1uF Capacitors_SMD:C_0603_HandSoldering C4 1uF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C6 1uF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 1uF Capacitors_SMD:C_0603_HandSoldering C9 1uF Capa	R7	180K	Resistors_SMD:R_0603_HandSoldering
C4 100nF Capacitors_SMD:C_0603_HandSoldering C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering C3 1uF Capacitors_SMD:C_0603_HandSoldering C4 1uF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C6 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C8 10nF Capacitors_SMD:C_0603_HandSoldering C9 10nF Capacitors	R5	10k	Resistors_SMD:R_0603_HandSoldering
C3 4.7uF Capacitors_SMD:C_0603_HandSoldering C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering J1 PT100 Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_Straigh J3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J4 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	R9	10k	Resistors_SMD:R_0603_HandSoldering
C1 100nF Capacitors_SMD:C_0603_HandSoldering C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering J1 PT100 Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_Straigh J3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J2 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	C4	100nF	Capacitors_SMD:C_0603_HandSoldering
C6 4.7nF Capacitors_SMD:C_0603_HandSoldering C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering J1 PT100 Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_Straigh J3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J2 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	C3	4.7uF	Capacitors_SMD:C_0603_HandSoldering
C5 10nF Capacitors_SMD:C_0603_HandSoldering C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering J1 PT100 Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_Straigh J3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J2 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	C1	100nF	Capacitors_SMD:C_0603_HandSoldering
C7 100nF Capacitors_SMD:C_0603_HandSoldering C2 1uF Capacitors_SMD:C_0603_HandSoldering J1 PT100 Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_Straigh J3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J2 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	C6	4.7nF	Capacitors_SMD:C_0603_HandSoldering
C2 1uF Capacitors_SMD:C_0603_HandSoldering J1 PT100 Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_Straigh J3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J2 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	C5	10nF	Capacitors_SMD:C_0603_HandSoldering
J1 PT100 Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_Straight J3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J2 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	C7	100nF	Capacitors_SMD:C_0603_HandSoldering
J3 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J2 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	C2	1uF	Capacitors_SMD:C_0603_HandSoldering
J2 CONN_01X08 Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	J1	PT100	Connectors_JST:JST_XH_B03B-XH-A_03x2.50mm_Straight
J5 GS3 Connectors:GS3 J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini	J3	CONN_01X08	Socket_Strips:Socket_Strip_Straight_1x08_Pitch2.54mm
J4 GS3 Connectors:GS3 J6 Aloes_Logo Aloes:Aloes_mini		_	
J6 Aloes_Logo Aloes:Aloes_mini	J5	GS3	Connectors:GS3
		GS3	Connectors:GS3
J7 OSHW_Logo Symbols:OSHW-Logo_5.7x6mm_SilkScreen	J6		<del>-</del>
	J7	OSHW_Logo	Symbols:OSHW-Logo_5.7x6mm_SilkScreen

Datasheet Package MF

0.15 USD SOT-23-3 NXP Semiconductors NXP Semiconductors

DOCUMENTATION

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## Description

Voltage Reference%2C Precision%2C Shunt - Adjustable%2C AEC-Q100 TL431 Series%2C 2.495V to 36V%2C SOT-23-

Availability MP

Good TL431ACDBZR