

32V Type-C CC and SBU Over-Voltage and IEC ESD Protection Switch

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Leakage current for CC pins when device is powered.	I _{CC_LEAK}	V _{33E} = 3.3 V, V _{C_CCx} = 3.6 V, CCx pins are floating, measure leakage into C_CCx pins. Result must be same if CCx side is biased and C_CCx is left floating.		35		uA
Leakage current for SBU pins when device is powered.	I _{SBU_LEAK}	V _{33E} = 3.3 V, V _{C_SBUx} = 3.6 V, SBUx pins are floating, measure leakage into C_SBUx pins. Result must be same if SBUx side is biased and C_SBUx is left floating.		0.12		uA
Leakage current for CC pins when device is in OVP	I _{C_CCx_LEAK_OVP}	V _{33E} = 0V or 3.3V, V _{BUS} = V _{C_CCx} = 32V, CCx pins are set to 0V, measure leakage into C_CCx pins.		280		uA
Leakage current for CC pins when device is in OVP	I _{CCx_LEAK_OVP}	V _{33E} = 0V or 3.3V, V _{C_CCx} = 32V, CCx pins are set to 0V, measure leakage out of CCx pins.		0.1		uA
Leakage current for SBU pins when device is in OVP	I _{C_SBUx_LEAK_OVP}	V _{33E} = 0V or 3.3V, V _{C_SBUx} = 32V, SBUx pins are set to 0V, measure leakage into C_SBUx pins.		340		uA
Leakage current for SBU pins when device is in OVP	I _{SBUx_LEAK_OVP}	V _{33E} = 0V or 3.3V, V _{C_SBUx} = 32V, SBUx pins are set to 0V, measure leakage out of SBUx pins.		0.1		uA
V33E Input Supply Range		External Supply Voltage	2.7		5.5	V
V33E to VPWR Load Switch Resistance	R _{V33E}	V _{33E} =3.3V		6		Ω
V33E to VPWR Load Switch Enable Threshold	V _{UVLO_H}	V _{33E} Rising, V _{BUS} =5V		2.40		V
V33E to VPWR Load Switch Enable Threshold Hysteresis	V _{ULVO_HYS}	V _{33E} Falling, V _{BUS} =5V		0.22		V
VPWR supply under voltage Threshold	V _{PWRUVLO_H}	VPWR Rising		2.40		V
VPWR supply under voltage Threshold Hysteresis	V _{PWRULVO_HYS}	VPWR Falling		0.2		V
VBUS Range		BUS voltage from Type-C Port			32	V
VPWR Output Voltage in Low Battery or Dead Battery Conditions	V _{DEAD}	V _{33E} =0V, 4V≤V _{BUS} ≤32V	2.7	3.3	3.45	V
VPWR Maximum Current Limit in Low Battery or Dead Battery Conditions	I _{LIMIT}	V _{33E} =0V, V _{BUS} =5V		50		mA
FLTB Pin						
Low level output voltage	V _{OL}	CC pins or SBU pins are in OVP, I _{FLTB} =3mA, measure the FLTB pin voltage.			0.4	V
Time from OVP asserted to FLTB pin assertion	t _{OVP_FLTB_ASSERTION}			50		μs