

ABSOLUTE MAXIMUM RATINGS

Peak Operating Voltage 50 V
 Reverse Current 50 mA
 Storage Temperature -55 to 150°C

Power Dissipation^a 350 mW

Notes:

a. Derate 2.8 mW/°C above 25°C

SPECIFICATIONS (T_A = 25°C UNLESS OTHERWISE NOTED)

Parameter	Symbol	Test Conditions	Limits			Unit
			Min	Typ ^a	Max	
Peak Operating Voltage ^b	P _{OV}	I _F = 1.1 I _{F(max)}	50	95		V
Reverse Voltage	V _R	I _R = 1 mA		0.8		
Capacitance	C _F	V _F = 25 V, f = 1 MHz		2.2		pF

	Regulator Current ^c (I _F)			Dynamic Impedance ^d (Z _d)		Knee Impedance (Z _k)	Limiting Voltage ^e (V _L)		Temperature Coefficient (θ ₁)
	V _F = 25 V			V _F = 25 V		V _F = 6 V	I _F = 0.8 I _{F(min)}		V _F = 25 V 0°C ≤ T _A ≤ 100°C
Part Number	mA			MΩ		MΩ	V		%/°C
	Min	Nom	Max	Min	Typ ^a	Typ ^a	Max	Typ ^a	Typ ^a
J500	0.192	0.24	0.288	4.00	15	2.50	1.2	0.4	0.95
J501	0.264	0.33	0.396	2.20	10	1.60	1.3	0.5	0.81
J502	0.344	0.43	0.516	1.50	7	1.10	1.5	0.6	0.70
J503	0.448	0.56	0.672	1.20	5	0.80	1.7	0.7	0.58
J504	0.600	0.75	0.900	0.80	3.5	0.55	1.9	0.8	0.46
J505	0.800	1.00	1.200	0.50	2	0.40	2.1	0.9	0.33
J506	1.120	1.40	1.680	0.33	1.5	0.25	2.5	1.1	0.19
J507	1.440	1.80	2.160	0.20	1	0.19	2.8	1.3	0.08
J508	1.900	2.40	2.900	0.20	0.7	0.13	3.1	1.5	-0.05
J509	2.400	3.00	3.600	0.15	0.5	0.09	3.5	1.7	-0.14
J510	2.900	3.60	4.300	0.15	0.4	0.07	3.9	1.9	-0.22
J511	3.800	4.70	5.600	0.12	0.3	0.05	4.2	2.1	-0.34

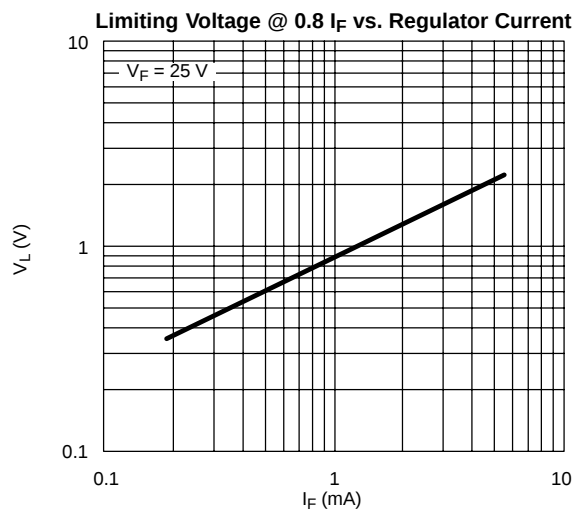
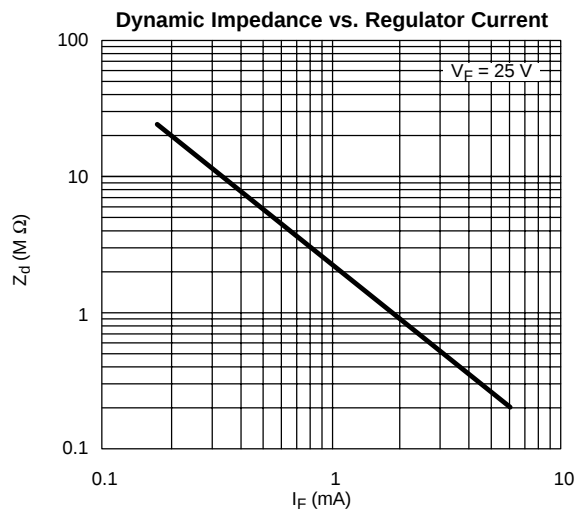
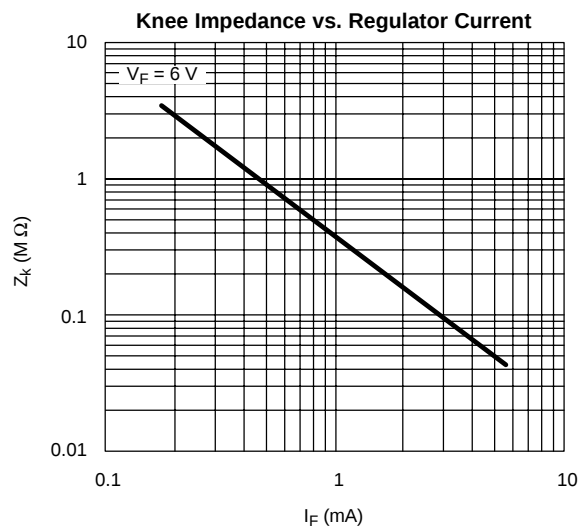
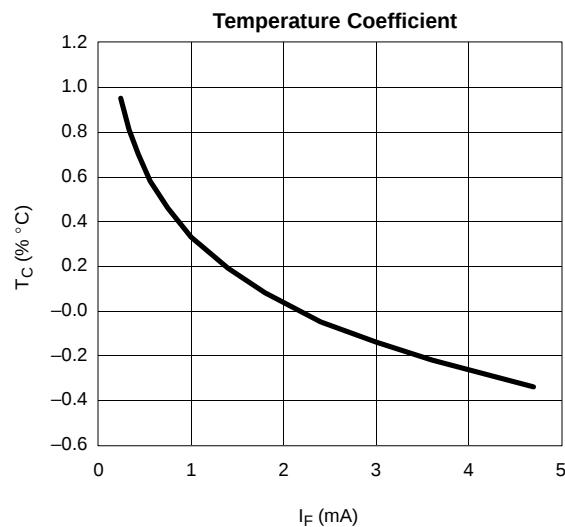
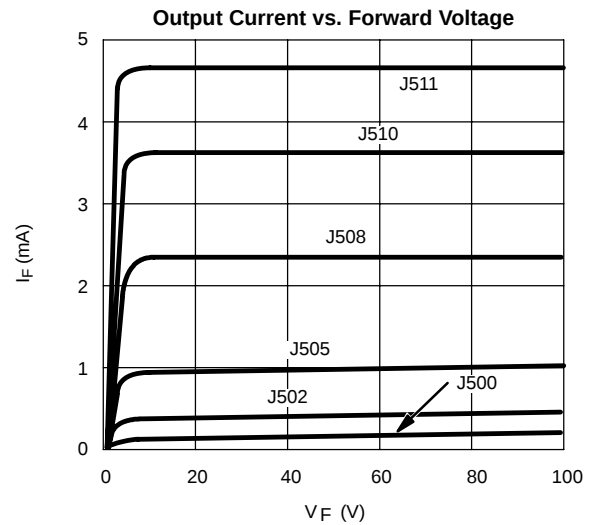
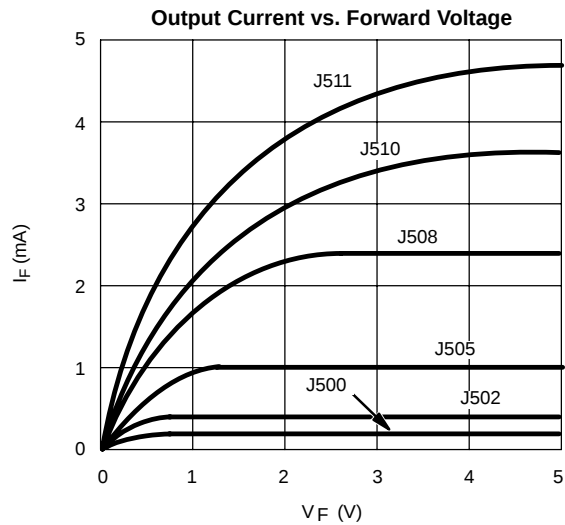
Notes:

- Typical values are for DESIGN AID ONLY, not guaranteed nor subject to production testing.
- Max V_F where I_F = 1.1 I_{F(max)} is guaranteed.
- Pulse test—steady state currents may vary.
- Pulse test—steady state impedances may vary.
- Min V_F required to insure I_F = 0.8 I_{F(min)}.

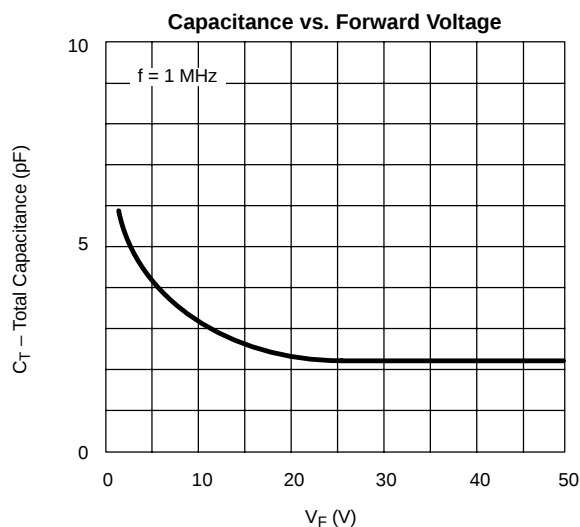
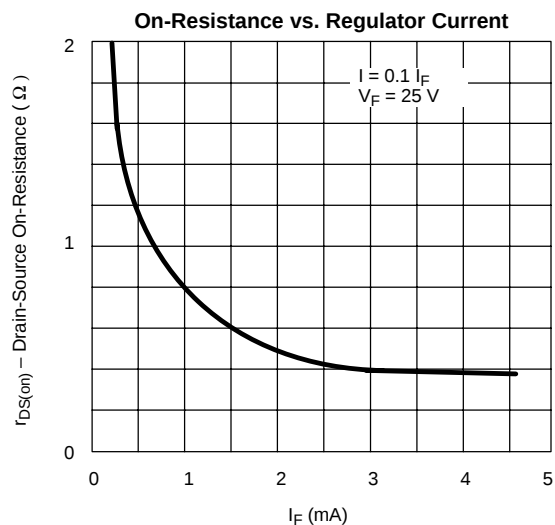
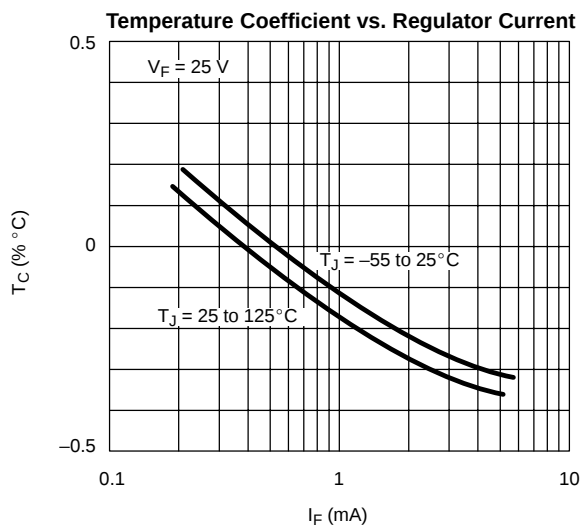
NCL



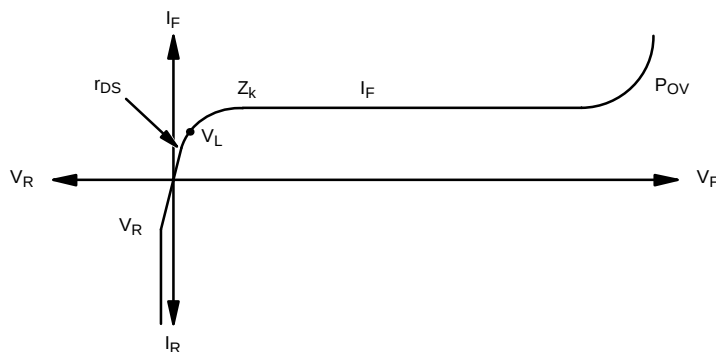
TYPICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)



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CURRENT REGULATOR DIODE V-1 CHARACTERISTIC





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