

## Surface Mount Current Regulative Diodes

### FEATURES

- 3V to 190V operating voltage between two terminals
- Low power loss, high efficiency
- Be paralleled for current extension.
- Negative temperature coefficient
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS compliant
- Halogen free

### SOD-123FS



RoHS  
COMPLIANT

HALOGEN  
FREE

### MECHANICAL DATA

- Case: SOD-123FL
- Case material: underwriters laboratory flammability classification 94V-0
- Polarity: indicated by cathode band

### TYPICAL APPLICATION

General purpose use in LED Lighting, instrument and equipment, home appliance etc.

### MAXIMUM RATINGS

$T_A=25^{\circ}\text{C}$  unless otherwise noted

Parameter	Symbol	Min.	Max.	Unit
Power Dissipation	$P_D$	-	1.2	W
Supply Voltage	$V_S$	3	190	V
Operating Junction Temperature Range	$T_J$	-55 to +150		$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150		$^{\circ}\text{C}$

### ELECTRICAL CHARACTERISTICS

$T_A=25^{\circ}\text{C}$  unless otherwise noted

Type	Marking Code	Regulator Current $I_P @ V_T=20\text{V}$		Maximum Knee Voltage $V_K @ 0.8 \cdot I_{Pmin}$	Maximum Load Voltage $V_L @ 1.1 \cdot I_{Pmax}$
		Min.(mA)	Max.(mA)	(V)	(V)
AC15D190F	D15	12	18	3.2	190
AC20D190F	D20	16	24	3.5	190
AC25D190F	D25	22	28	4.5	190
AC30D190F	D30	27	33	4.8	190
AC40D190F	D40	36	44	6.0	190
AC60D190F	D60	54	66	7.0	190
AC80D190F	D80	72	88	8.0	190

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### RATINGS AND CHARACTERISTIC CURVES

T<sub>A</sub>=25°C unless otherwise noted

FIG.1: Regulator Current vs Temperature

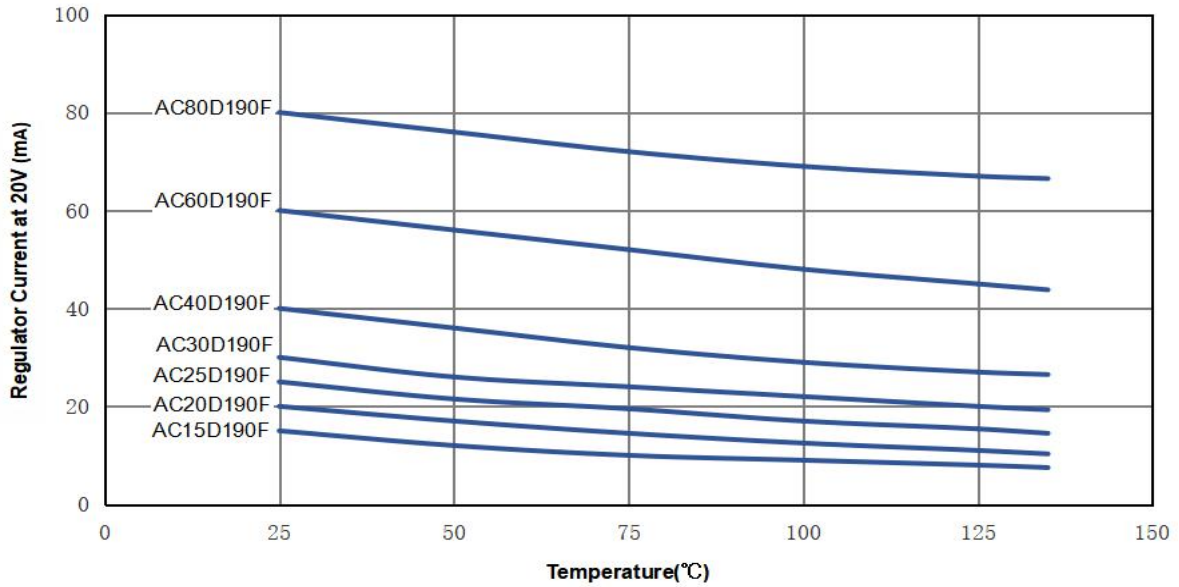
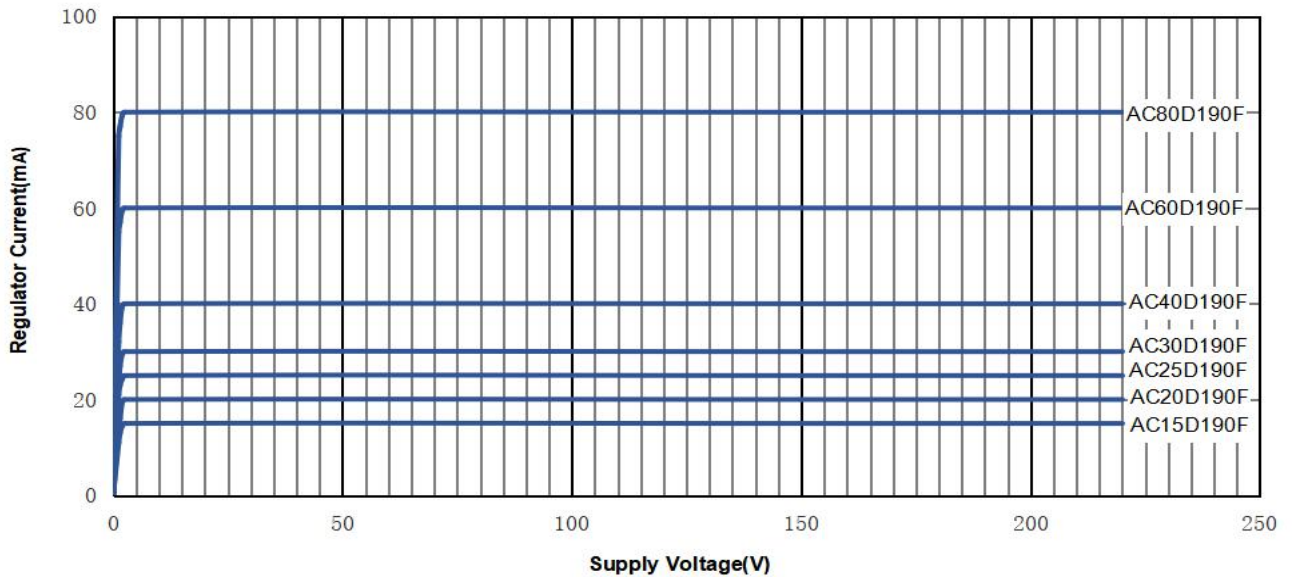
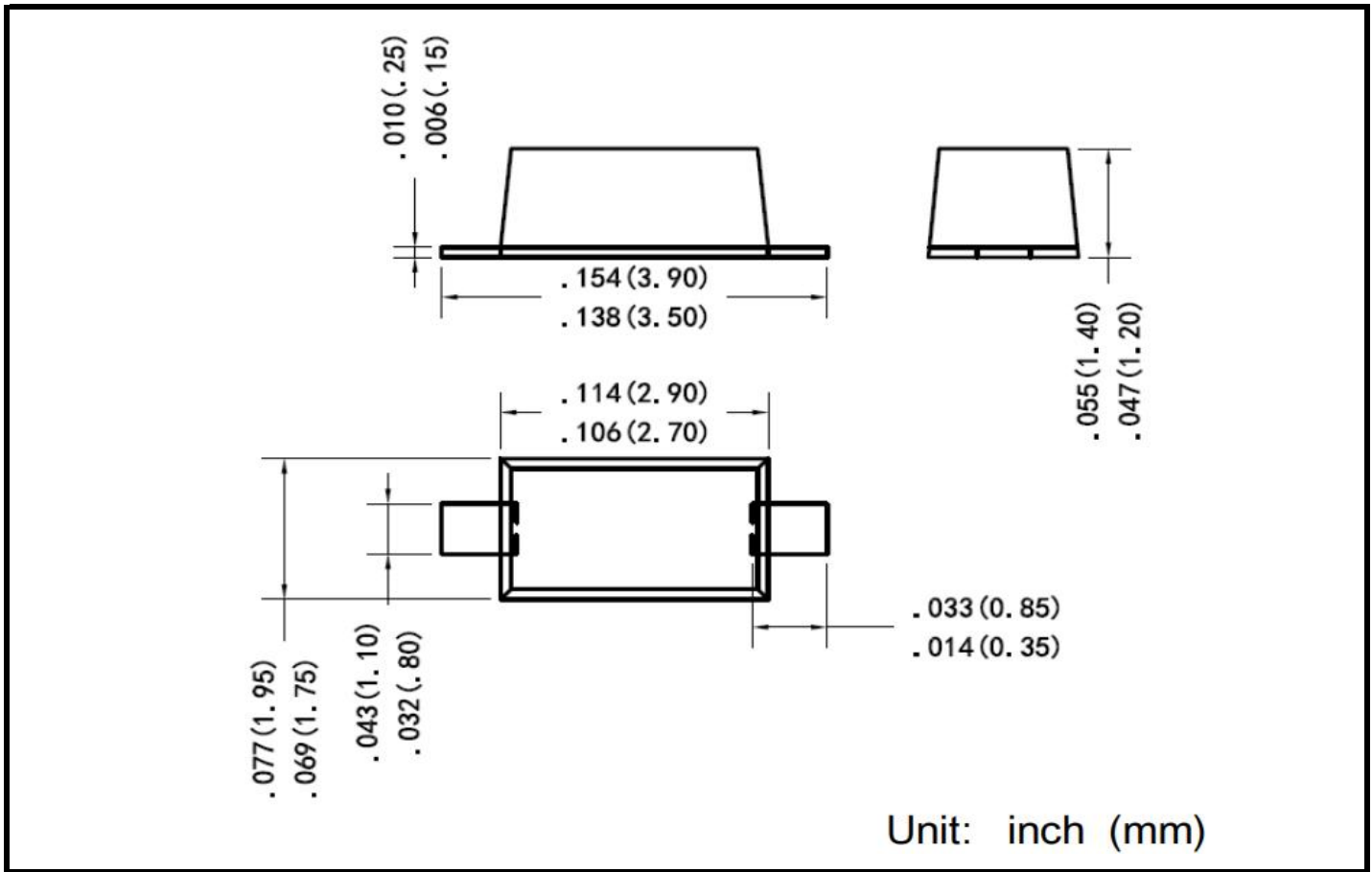


FIG.2: Regulator Current vs Supply Voltage



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### PACKAGE OUTLINE DIMENSIONS



### PACKING INFORMATION

Package	Reel(PCS)	Inner Box(PCS)	Carton(PCS)
SOD-123FL	3,000	21,000	252,000