



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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SPD3595

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SPD _____

Screening ^{2/}

____ = Not Screened

TX = TX Level

TXV = TXV

S = S Level (for SM, use -S)

Package Type

____ = Axial Leaded

SM = Surface Mount Round Tab
(MELF)

SMS = Surface Mount Square Tab

Device Type (VRWM)

3595 = 125 V

150 mA

125 VOLT

3 μ sec STANDARD RECOVERY
RECTIFIER

FEATURES:

- Standard Reverse Recovery Time: 3 μ sec Max
- Hermetically Sealed
- Planar Passivated Chip
- For High Efficiency Applications
- Available in Axial, Subminiature Round Tab & Subminiature Square Tab Versions
- Faster Devices Available – Contact Factory
- TX, TXV, and S-Level Screening Available ^{2/}
- Replacement for 1N3595

MAXIMUM RATINGS ^{3/}

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RWM} V_R	125	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_C = 25^\circ\text{C}$)	I_O	150	mAmps
Peak Surge Current ($t = 1\text{sec}$, $T_a = 25^\circ\text{C}$)	I_{FSM}	500	mAmps
Operating & Storage Temperature	T_{OP} and T_{STG}	-65 to +175	$^\circ\text{C}$
Thermal Resistance Junction to End Tab (SM & SMS) Axial- Junction to Lead @ .375"	$R_{\theta JE}$ $R_{\theta JL}$	100 250	$^\circ\text{C/W}$

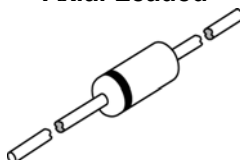
NOTES:

^{1/} For Ordering Information, Price, and Availability- Contact Factory.

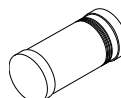
^{2/} Screening Based on MIL-PRF-19500.
Screening Flows Available on Request.

^{3/} Unless Otherwise Specified, All Electrical Characteristics @25 $^\circ\text{C}$.

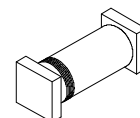
Axial Leaded



SM



SMS



NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

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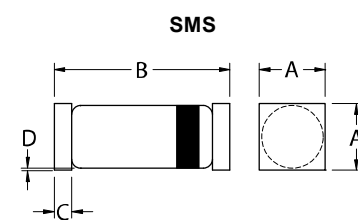
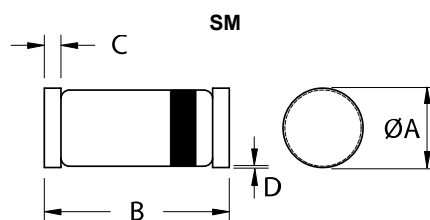
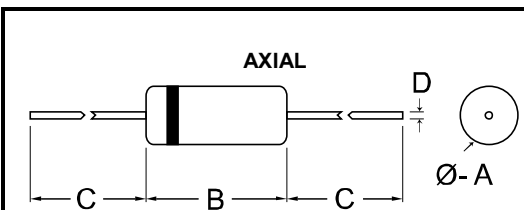
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ELECTRICAL CHARACTERISTICS ^{3/}

CHARACTERISTICS	SYMBOL	MIN	MAX	UNIT
Maximum Instantaneous Forward Voltage Drop (Pulsed, $T_A = 25^\circ\text{C}$)	$I_F = 200\text{mA}$ V_{F1}	.83	1.00	Vdc
	$I_F = 100\text{mA}$ V_{F2}	.79	.92	
	$I_F = 50\text{mA}$ V_{F3}	.74	.88	
	$I_F = 10\text{mA}$ V_{F4}	.65	.80	
	$I_F = 5\text{mA}$ V_{F5}	.60	.765	
	$I_F = 1\text{mA}$ V_{F6}	.52	.70	
Minimum Breakdown Voltage $I_r = 50 \mu\text{A}$	B_{VR}	125	---	Vdc
Maximum Reverse Leakage Current (300 μs Pulse Minimum, $T_A = 25^\circ\text{C}$) $V_R = 125\text{V}$	I_{R1}	--	1.0	nA
Maximum Reverse Leakage Current (300 μs Pulse Minimum, $T_A = 150^\circ\text{C}$) $V_R = 125\text{V}$	I_{R2}	--	3	μA
Maximum Junction Capacitance ($T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$, $V_R = 0\text{V}$)	C_J	--	8.0	pf
Maximum Reverse Recovery Time ($I_F = 10 \text{mA}$, $V_R = 35\text{V}$, $R = 1,000 \Omega$)	t_{rr}	--	3	μsec



DIM	MIN	MAX	MIN	MAX	MIN	MAX
A	.056"	.075"	.063"	.067"	.070"	.085"
B	.140"	.180"	.130"	.146"	.165"	.195"
C	1.00"	1.50"	.016"	.022"	.019"	.028"
D	.018"	.022"	.001"	---	.003"	---

Dimensions prior to soldering

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