



Solid State Devices, Inc.

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

150 mA
125 VOLT
3 μsec STANDARD RECOVERY
RECTIFIER

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SPD _____

Screening ^{2/}

_____ = Not Screened

TX = TX Level

TXV = TXV

S = S Level

Package Type

_____ = Axial Leaded

SM = Surface Mount Round Tab (MELF)

SMS = Surface Mount Square Tab

Device Type (VRWM)

3595 = 125 V

FEATURES:

- Standard Reverse Recovery Time: 3 μsec 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) Junction to End Tab (SMS) Axial- Junction to Lead @ .375"	$R_{\theta JE}$ $R_{\theta JE}$ $R_{\theta JL}$	100 40 250 $^\circ\text{C/W}$

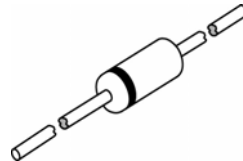
NOTES:

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

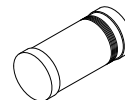
^{2/} Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

^{3/} Unless Otherwise Specified, All Electrical Characteristics @25°C.

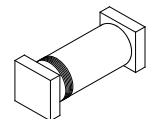
Axial Leaded



SM



SMS



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

DATA SHEET #: RC0127A

DOC



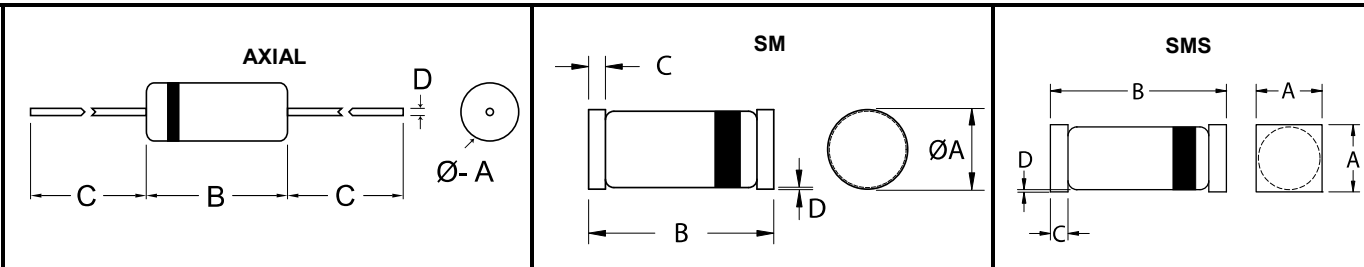
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ELECTRICAL CHARACTERISTICS ^{3/}

CHARACTERISTICS	SYMBOL	MIN	MAX	UNIT	
Maximum Instantaneous Forward Voltage Drop (Pulsed, T _A = 25°C)	I _F = 200mA	V _{F1}	.83	1.00	Vdc
	I _F = 100mA	V _{F2}	.79	.92	
	I _F = 50mA	V _{F3}	.74	.88	
	I _F = 10mA	V _{F4}	.65	.80	
	I _F = 5mA	V _{F5}	.60	.765	
	I _F = 1mA	V _{F6}	.52	.70	
Minimum Breakdown Voltage I _r = 50 μA	B _{VR}	125	---	Vdc	
Maximum Reverse Leakage Current (300 μs Pulse Minimum , T _A = 25°C)	V _R = 125V	I _{R1}	--	1.0	nA
Maximum Reverse Leakage Current (300 μs Pulse Minimum , T _A = 150°C)	V _R = 125V	I _{R2}	--	3	μA
Maximum Junction Capacitance (T _A = 25°C , f = 1MHz, V _R = 0V)		C _J	--	8.0	pf
Maximum Reverse Recovery Time (I _F = I _R = 10 mA, V _R = 35V)		t _{rr}	--	3	μsec



DIM	AXIAL		SM		SMS	
	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