



查询3SM0供应商

SEMTECH

**1N5550 THRU 1N5554
3SM2 THRU 3SM0**
**Axial Leaded Hermetically Sealed
Standard Recovery Rectifier Diode**

POWER DISCRETES

Description

Quick reference data

$$V_R = 200 - 1000V$$

$$I_F = 5.0A$$

$$t_{rr} = 2\mu S$$

$$V_F = 1.0V$$

Features

- ◆ Low reverse leakage current
- ◆ Hermetically sealed in fused metal oxide
- ◆ Good thermal shock resistance
- ◆ Low forward voltage drop
- ◆ Avalanche capability

These products are qualified to MIL-PRF-19500/420. They can be supplied fully released as JAN, JANTX, and JANTXV versions.

Absolute Maximum Ratings

Electrical specifications @ $T_A = 25^\circ C$ unless otherwise specified.

	Symbol	1N5550 3SM2	1N5551 3SM4	1N5552 3SM6	1N5553 3SM8	1N5554 3SM0	Units
Working Reverse Voltage	V_{RWM}	200	400	600	800	1000	V
Average Forward Current @ $55^\circ C$ in free air, lead length 0.375"	$I_{F(AV)}$	5.0					A
Repetitive Surge Current @ $55^\circ C$ in free air, lead length 0.375"	I_{FRM}	25					A
Non-Repetitive Surge Current ($t_p = 8.3mS$ @ V_R & T_{JMAX}) ($t_p = 8.3mS$, @ V_R & $25^\circ C$)	I_{FSM}	100 150					A
Storage Temperature Range	T_{STG}	-65 to +175					$^\circ C$



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Electrical Specifications

	Symbol	1N5550 3SM2	1N5551 3SM4	1N5552 3SM6	1N5553 3SM8	1N5554 3SM0	Units
Average Forward Current (sine wave) - max. $T_A = 55^\circ\text{C}$ - max. $L = 3/8"$; $T_L = 55^\circ\text{C}$	$I_{F(AV)}$ $I_{F(AV)}$			3.0 5.0			A
I^2t for fusing ($t = 8.3\text{mS}$) max	I^2t			42			A^2S
Forward Voltage Drop max. @ $I_F = 3.0\text{A}$, $T_j = 25^\circ\text{C}$	V_F			1.0			V
Reverse Current max. @ V_{RWM} , $T_j = 25^\circ\text{C}$ @ V_{RWM} , $T_j = 125^\circ\text{C}$	I_R I_R			1.0 60			μA
Reverse Recovery Time max. $0.5\text{A } I_F$ to $1.0\text{A } I_{RM}$ recovers to $0.25\text{A } I_{RM(REC)}$	t_{rr}			2.0			μS
Junction Capacitance typ. @ $V_R = 5\text{V}$, $f = 1\text{MHz}$	C_j			92			pF

Thermal Characteristics

	Symbol	1N5550 3SM2	1N5551 3SM4	1N5552 3SM6	1N5553 3SM8	1N5554 3SM0	Units
Thermal Resistance-Junction to Lead Lead length = 0.375" Lead length = 0.0"	$R_{\theta JL}$ $R_{\theta JL}$			22 4			$^\circ\text{C/W}$
Thermal Resistance-Junction to Ambient on 0.06" thick pcb. 1 oz. copper	$R_{\theta JA}$			47			$^\circ\text{C/W}$

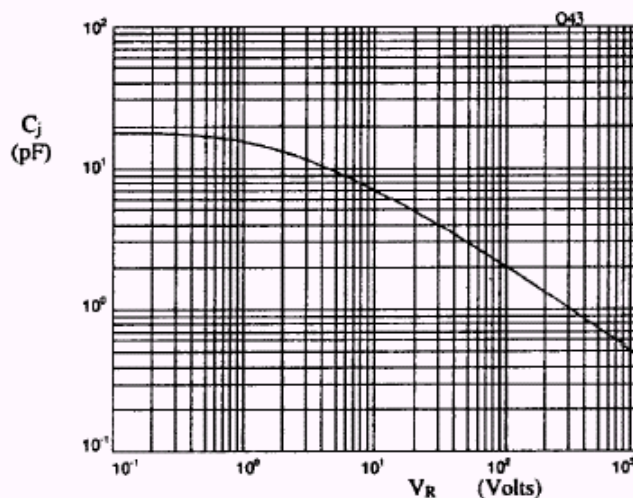
Typical Characteristics


Fig 1. Typical junction capacitance as a function of reverse voltage.

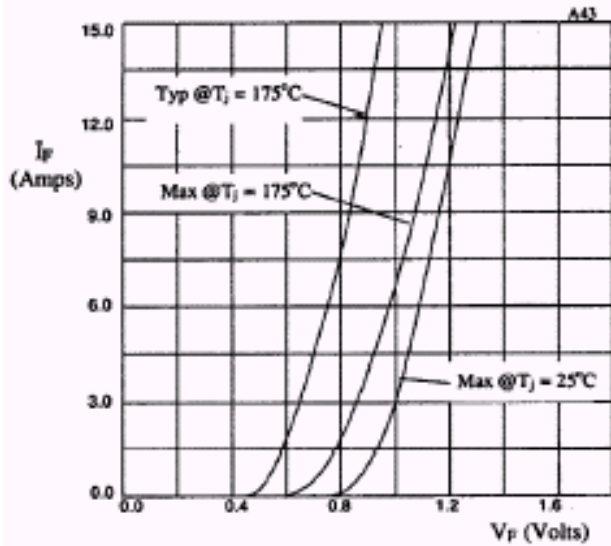
POWER DISCRETES
Typical Characteristics


Fig 2. Forward voltage drop as a function of forward current

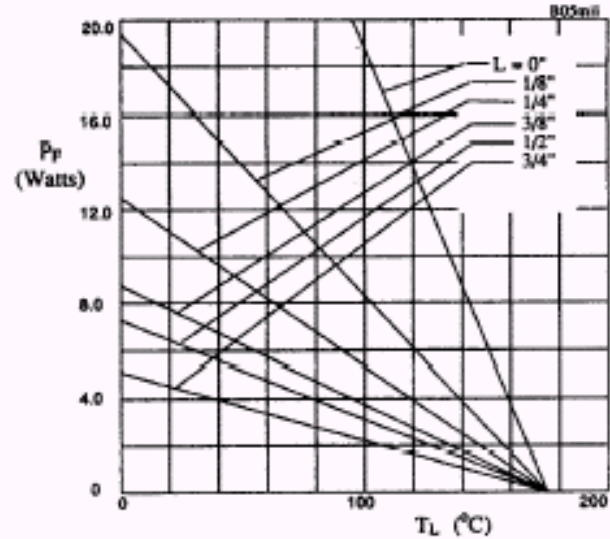


Fig 3. Maximum power versus lead temperature

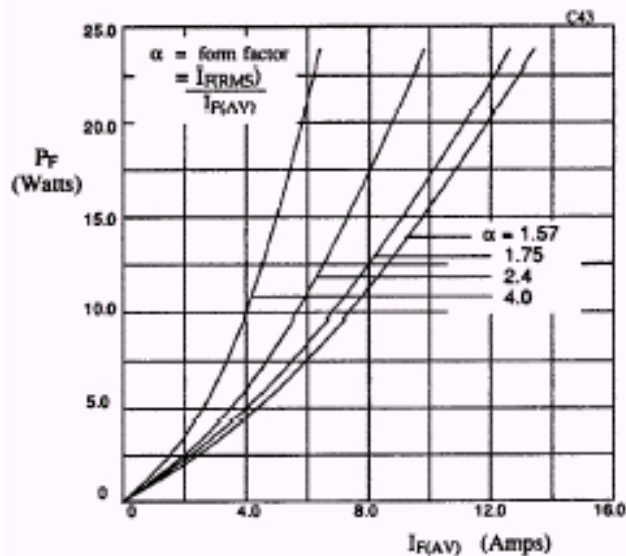


Fig 4. Forward power dissipation as a function of forward current, for sinusoidal operation.

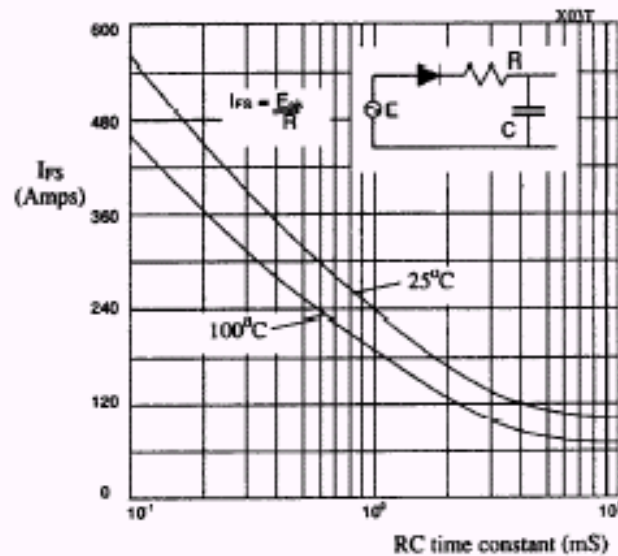


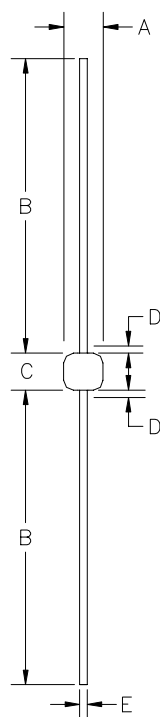
Fig 5. Maximum ratings for capacitive loads.

POWER DISCRETES
Ordering Information

Part Number	Description
1N5550 1N5551 1N5552 1N5553 1N5554 3SM2 3SM4 3SM6 3SM8 3SM0	Axial leaded hermetically sealed ⁽¹⁾

Note:

(1) Available in bulk and tape and reel packaging. Please consult factory for quantities.

Outline Drawing


G4

Dimensions					
DIM ^N	Inches		Millimeters		Note
	MIN	MAX	MIN	MAX	
A	0.135	0.18	3.43	4.57	-
B	0.9	1.3	22.86	33.02	-
C	0.13	0.17	3.3	4.32	-
D	-	0.03	-	0.8	1
E	0.036	0.042	0.92	1.07	-

Note:

(1) Lead diameter uncontrolled over this region.

Weight = 0.039oz

Contact Information

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