Transys Electronics LIMITED

# SD51(R)

## SCHOTTKY DIODES STUD TYPE 60 A

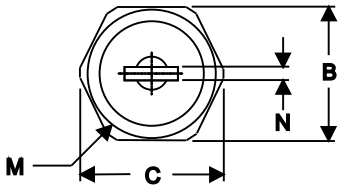
## Features

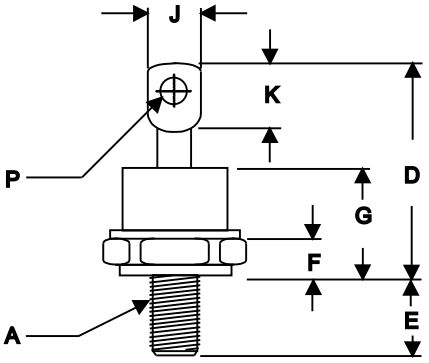
High Surge Capability

Types up to 45V $V_{RRM}$

60Amp Rectifier
45 Volts

## DO-5




## Maximum Ratings

Operating Temperature: -65 ℃ to +150 ℃

Storage Temperature: -65 ℃ to +175 ℃

| Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---|---|---|---|
| SD51( R ) | 45V | 32V | 45V |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Notes:
1.Standard Polarity:Stud is Cathode
2.Reverse Polarity:Stud is Anode

## Electrical Characteristics @ 25 ℃ Unless Otherwise Specified

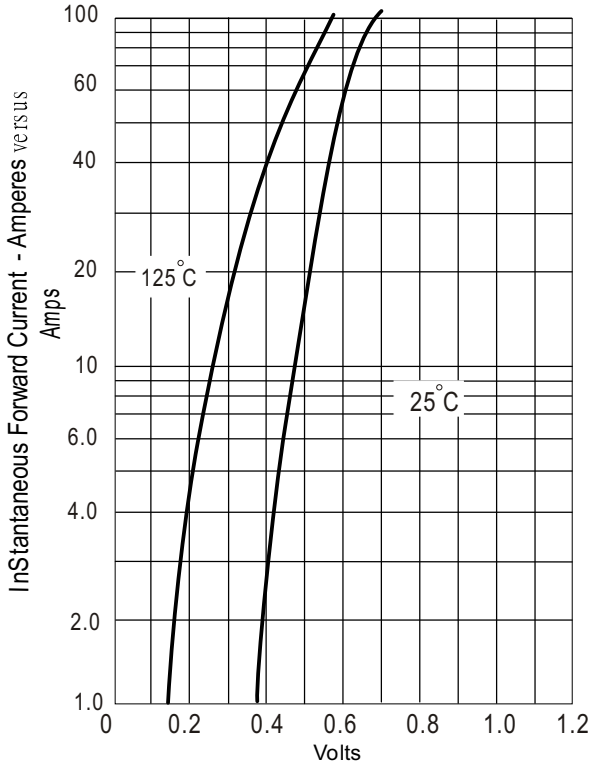
| | | | |
|---|---|---|---|
| Average Forward Current | $I_{F(AV)}$ | 60A | $T_C$ =100 ℃ |
| Peak Forward Surge Current | $I_{FSM}$ | 800A | 8.3ms , half sine |
| Maximum Instantaneous Forward Voltage NOTE (1) | $V_F$ | 0.66V | $I_{FM}$ =60 A<br>$T_J$ = 25 ℃ |
| Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage NOTE (1) | $I_R$ | 5.0 mA<br>200 mA | $T_J$ = 25 ℃<br>$T_J$ =125 ℃ |
| Maximum Thermal Resistance,Junction To Case | $R_{\theta JC}$ | 1.0℃/W | |

| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| | INCHES | | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| A | 1/4 -28 Threads | | Standard | Polarity | |
| B | .669 | .687 | 17.19 | 17.44 | |
| C | ----- | .794 | ----- | 20.16 | |
| D | ----- | 1.020 | ----- | 25.91 | |
| E | .422 | .453 | 10.72 | 11.50 | |
| F | .115 | .200 | 2.93 | 5.08 | |
| G | ----- | .460 | ----- | 11.68 | |
| H | ----- | ----- | ----- | ----- | |
| J | ----- | .375 | ----- | 9.52 | |
| K | .156 | ----- | 3.96 | ----- | |
| M | ----- | .667 | ----- | 16.94 | |
| N | ----- | .080 | ----- | 2.03 | |
| P | .140 | .175 | 3.56 | 4.45 | |

NOTE :

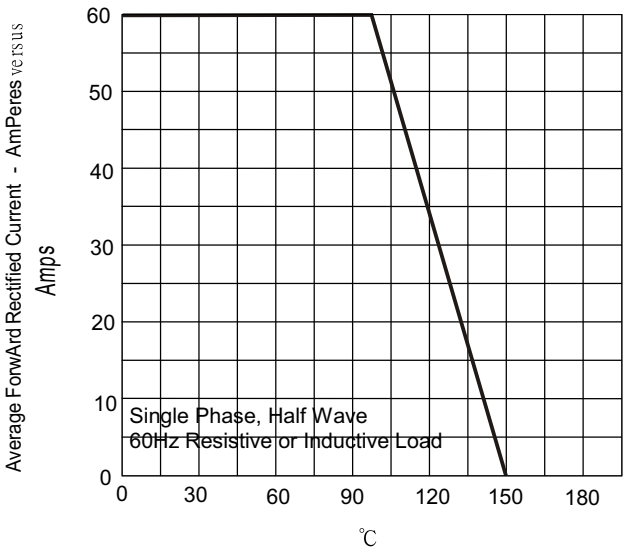
(1) Pulse Test: Pulse Width 300 usec, Duty Cycle < 2%

Figure 1
Typical Forward Characteristics




Instantaneous Forward Voltage - Volts

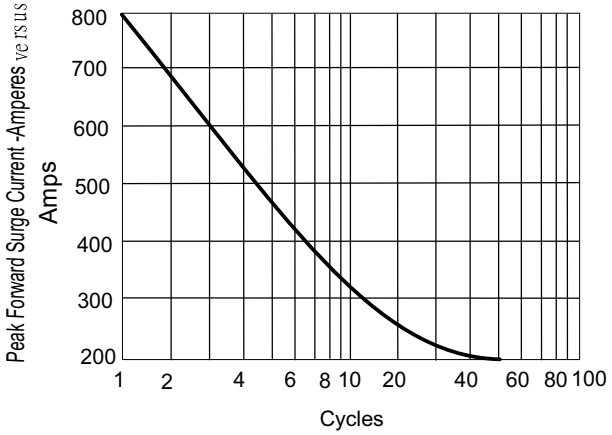
Figure 2
Forward Derating Curve




Case Temperature - ℃

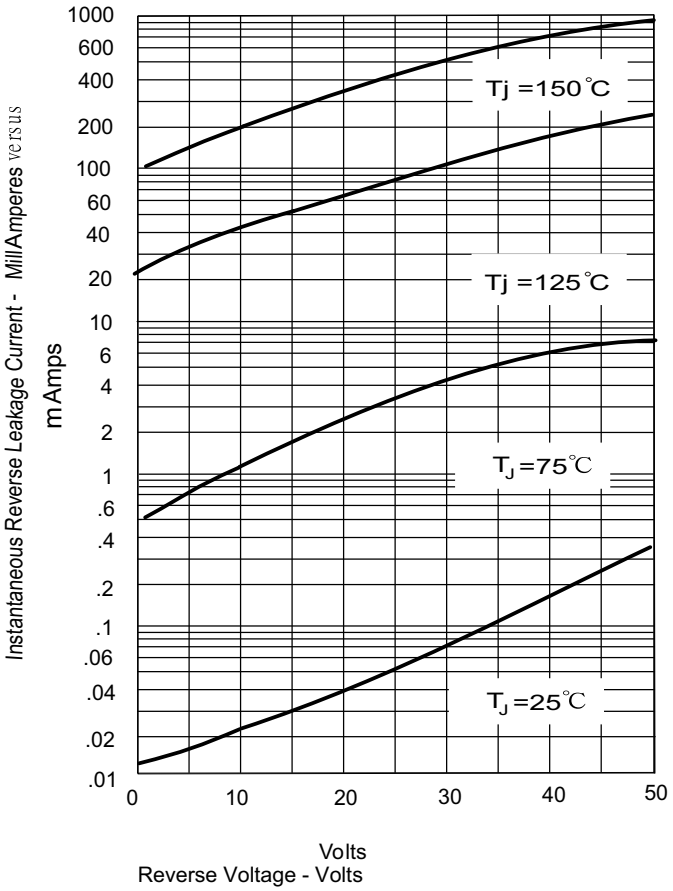
Figure 4
Typical Reverse Characteristics

Figure3
Peak Forward Surge Current




Number Of Cycles At 60Hz - Cycles

Figure 4
Typical Reverse Characteristics




Reverse Voltage - Volts