

SCHOTTKY DIODES STUD TYPE 40 A

Features

High Surge Capability
Types up to 40V V_{RRM}

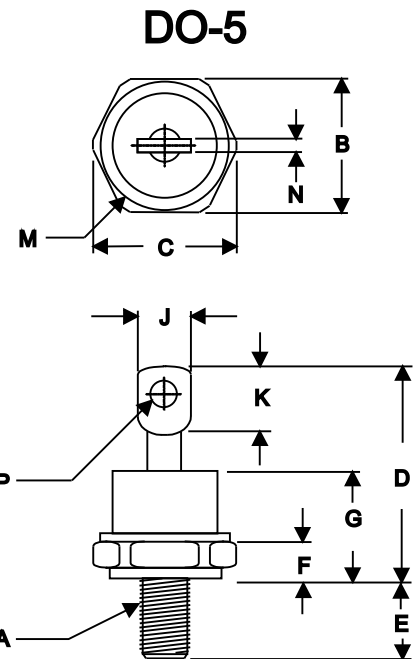
40Amp Rectifier
20-40 Volts

Maximum Ratings

Operating Temperature: -65 °C to +150 °C

Storage Temperature: -65 °C to +175 °C

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1N5832(R)	20V	14V	20V
1N5833(R)	30V	21V	30V
1N5834(R)	40V	28V	40V



Notes:

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

Electrical Characteristics @ 25 °C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	40A	$T_c = 100\text{ }^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	800A	8.3ms, half sine
Maximum Instantaneous Forward Voltage <small>NOTE (1)</small>	V_F	0.52V 0.55V 0.59V	(1N5832) (1N5833) (1N5834) $I_{FM} = 40\text{ A}; T_J = 25\text{ }^\circ\text{C}$
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage <small>NOTE (1)</small>	I_R	20 mA 250 mA	$T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$
Maximum Thermal Resistance, Junction To Case	$R_{\theta jc}$	1.5°C/W	

DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	1/4 -28 Threads				
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

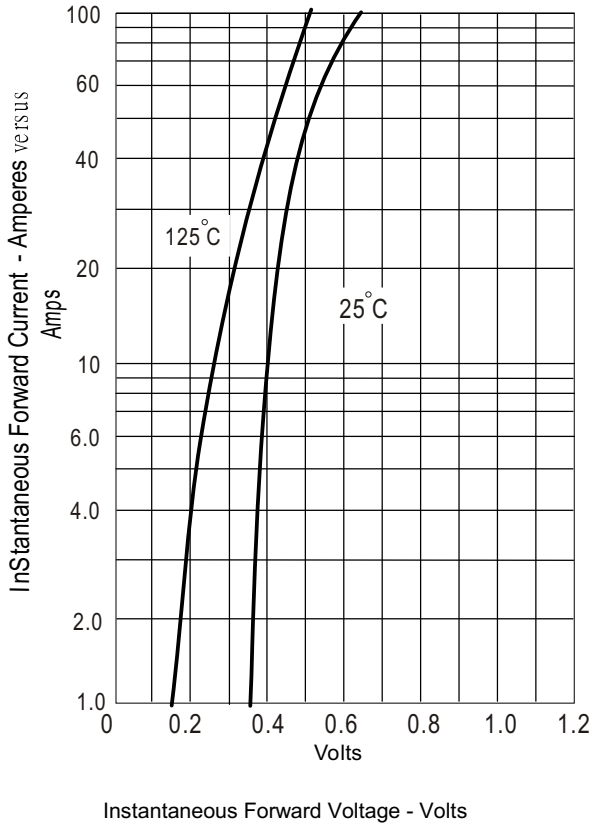


Figure 2
Forward Derating Curve

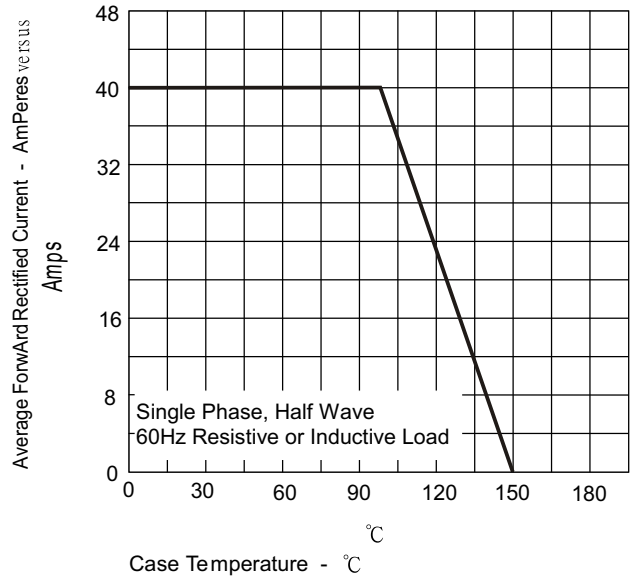


Figure 4
Typical Reverse Characteristics

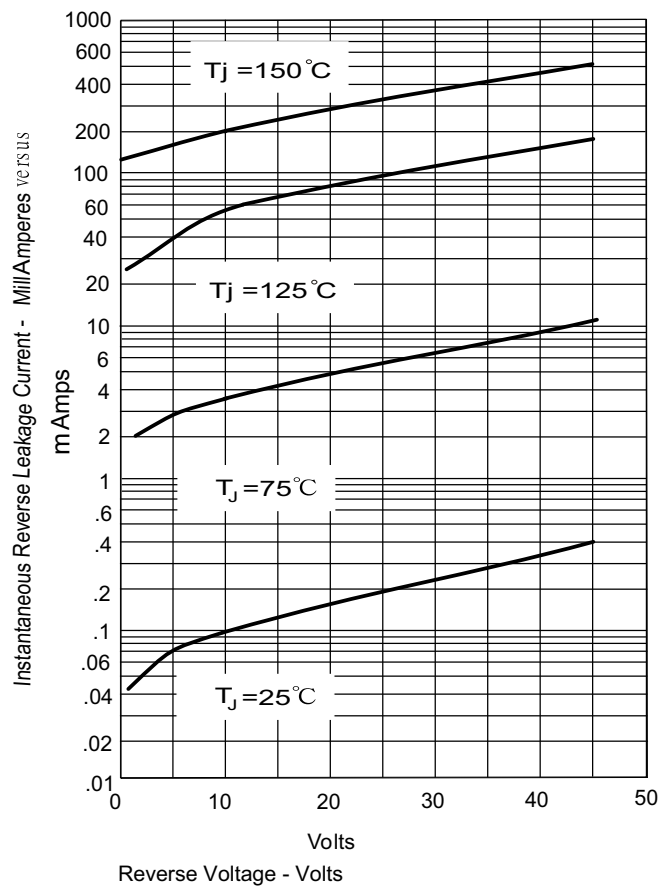


Figure 3
Peak Forward Surge Current

