

SDA60-10S

60A, 1000V Standard Rectifier

Features

- Typical Forward Voltage: $V_F=0.95V@ I_F=60A$
- Reverse Voltage: $V_{RRM}=1000V$
- Avalanche Energy Rated
- SIPOS+GPP double passivation

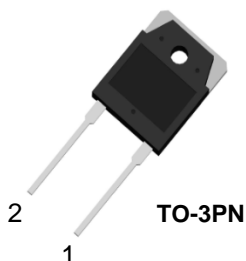
Applications

- Diode for main rectification
- For single and three phase
- Bridge configurations

Description

The SDA60-10S is a Standard Rectifier. It's a SIPOS+GPP double passivation chip, with high reliability. It has low leakage current and low forward voltage drop, Improved thermal behaviour

Package Type & Internal Circuit



1. Anode 2.Cathode

Absolute Maximum Ratings per diode at $T_C=25^{\circ}C$ unless otherwise noted

Symbol	Parameter		Ratings	Unit	
V _{RRM}	Peak Repetitive Reverse Voltage		1000	V	
V _{RWM}	Working Peak Reverse Voltage		1000	V	
V _R	DC Blocking Voltage		1000	V	
I _{F(AV)}	Average Rectified Forward Current	per device at T _C =120℃	60	A	
I _{FSM}	Non-repetitive Peak Surge Current	t = 10 ms (50 Hz), sine	T _{VJ} = 45° C V _R = 0 V	720	A
			T _{VJ} = 150° C V _R = 0 V	540	
I ² t	value for fusing	t = 10 ms (50 Hz), sine	T _{VJ} = 45° C V _R = 0 V	2580	A ² S
			T _{VJ} = 150° C V _R = 0 V	1450	
T _J	Operating Junction Temperature Range		-40~+150	℃	
T _{STG}	Storage Temperature Range		-40~+150	℃	

Thermal Characteristics

Symbol	Parameter	Ratings	Unit
$R_{th(J-C)}$	Thermal Resistance, Junction to case	0.32	$^{\circ}C/W$

Electrical Characteristics per diode @ $T_C=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_F	Forward Voltage Drop	$I_F=60A$	-	0.95	1.2	V
		$I_F=60A, T_C=120^{\circ}C$	-	-	0.95	V
I_R	Reverse Leakage Current	$V_R=1000V$	-	-	1	mA

Typical Performance Characteristics

Fig. 1. Typical Characteristics: V_F vs. I_F

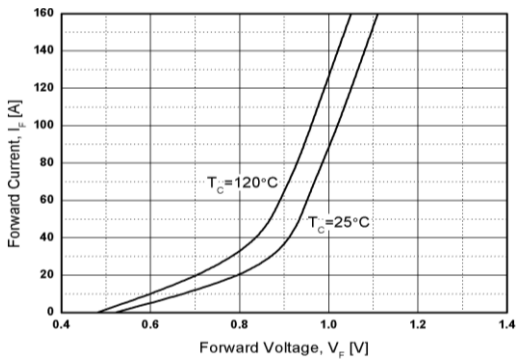


Fig. 2. Typical Characteristics: V_R vs. I_R

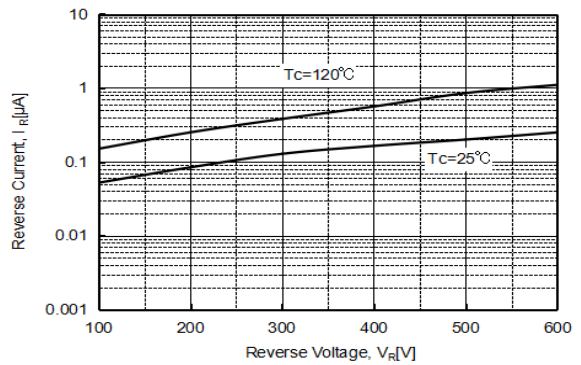
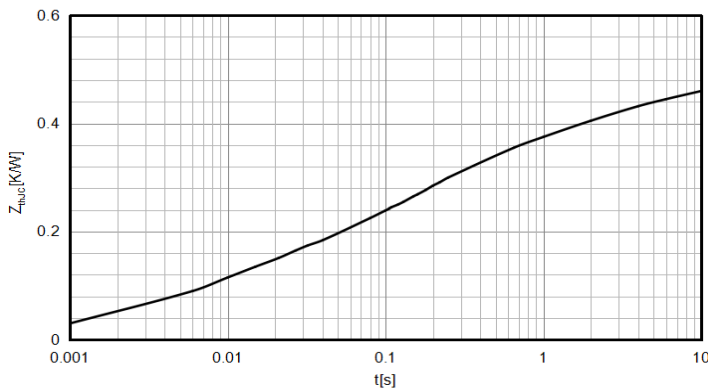


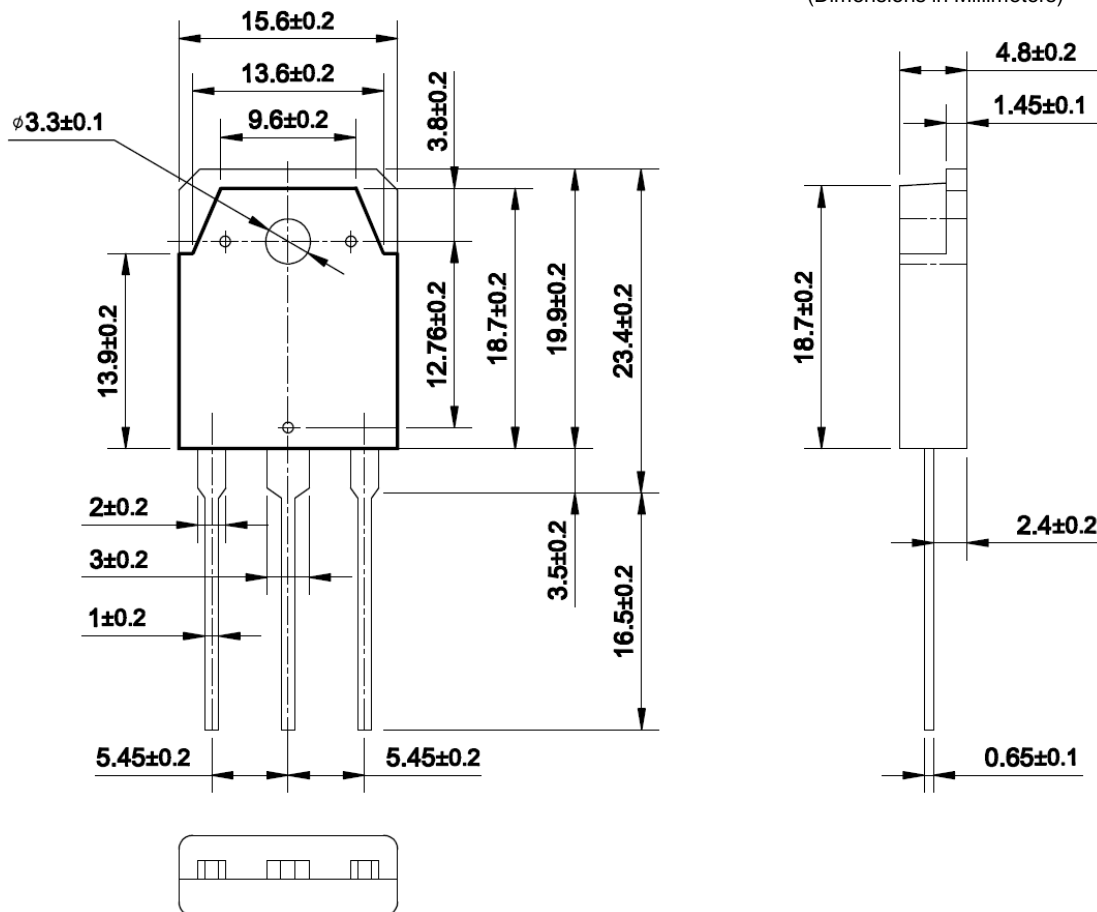
Fig. 3. Transient thermal impedance junction to case



Package Dimensions


TO-3PN

(Dimensions in Millimeters)



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