Pb Free Plating Product

SDB20100PR

20 Ampere Dual Common Anode Schottky Half Bridge Rectifier Diode

Features

- ✶ Fast switching for high efficiency
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

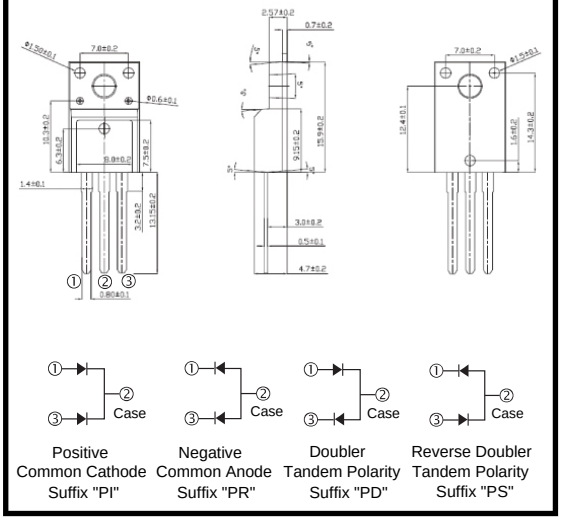
Application

- ✶ Automotive Inverters and Solar Inverters
- ✶ Plating Power Supply,SMPS and UPS
- ✶ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ✶ Case: Fully Isolated TO-220FP FullPak Plastic
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-202 method 208
- ✶ Polarity: As marked on diode body
- ✶ Mounting position: Any
- ✶ Weight: 2.1 gram approxiamtely

ITO-220AB Unit:mm



Positive Common Cathode Suffix "PI" | Negative Common Anode Suffix "PR" | Doubler Tandem Polarity Suffix "PD" | Reverse Doubler Tandem Polarity Suffix "PS"

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	SDB20100PR	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Average Rectified Output Current @TC=95°C	I_F	20	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Maximum Forward Voltage Note(1) IF=10A@ Tj=25°C IF=10A@ Tj=125°C IF=20A@ Tj=25°C IF=20A@ Tj=125°C	V_F	0.85 0.75 0.95 0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage Tj=25°C Tj=125°C	IR	0.1 50	mA
Typical Junction Capacitance per element (2)	C_J	250	pF
Typical thermal resistance Junction to Case (3)	$R_{\Theta JC}$	3.0	°C/W
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Note :

(1) 300us Pulse Width, 2% Duty Cycle.
(2) Measured at 1.0MHz and applied reverse voltage of 4.0 V_{DC}.
(3) Thermal Resistance Junction to Case, device mounted on L42 x H25 x W25mm_black Aluminum finny heat sink,

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- FORWARD CURRENT DERATING CURVE

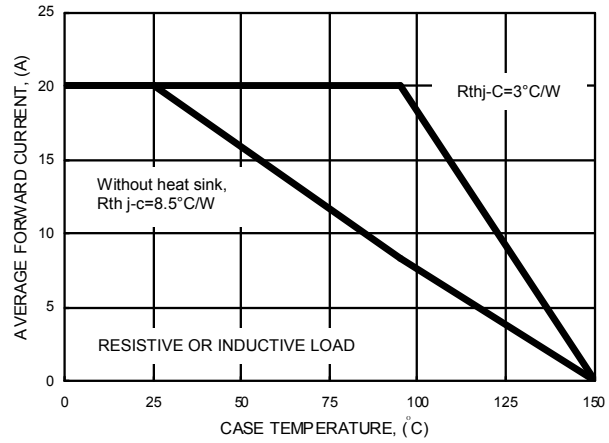


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

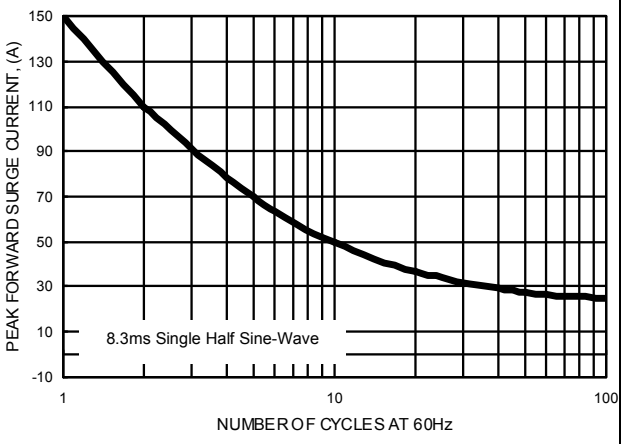


FIG.3- TYPICAL REVERSE CHARACTERISTICS

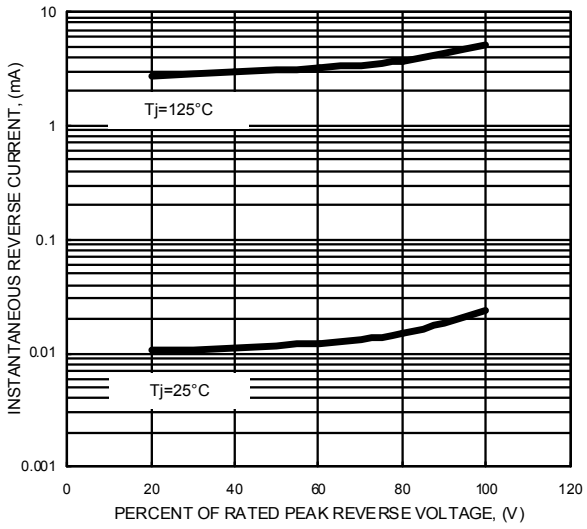


FIG.4- TYPICAL FORWARD CHARACTERISTICS

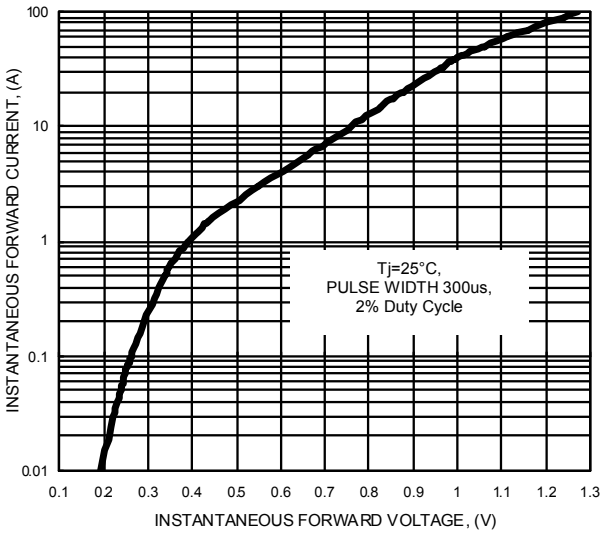


FIG.5- TYPICAL JUNCTION CAPACITANCE

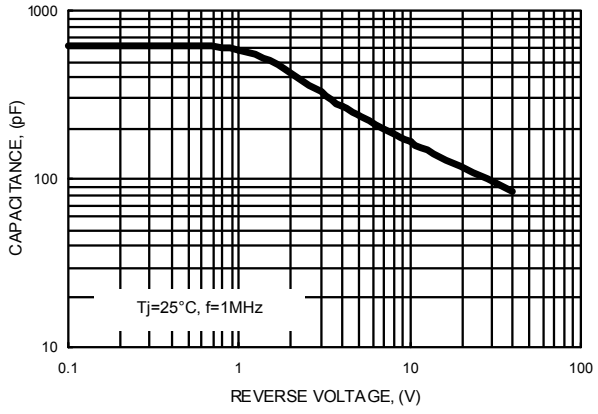
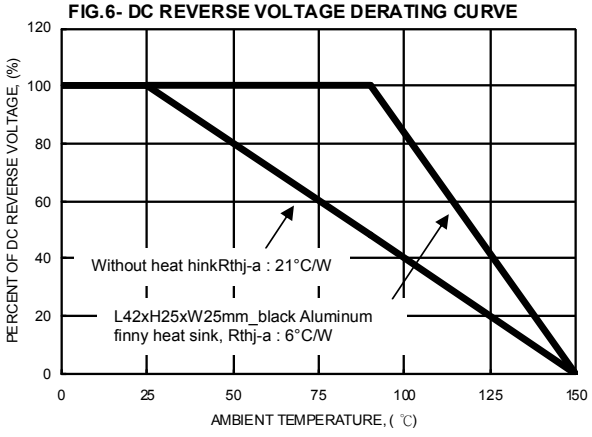


FIG.6- DC REVERSE VOLTAGE DERATING CURVE



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