

Pb Free Plating Product

SDB20100PR



20 Ampere Dual Common Anode Schottky Half Bridge Rectifier Diode

Features

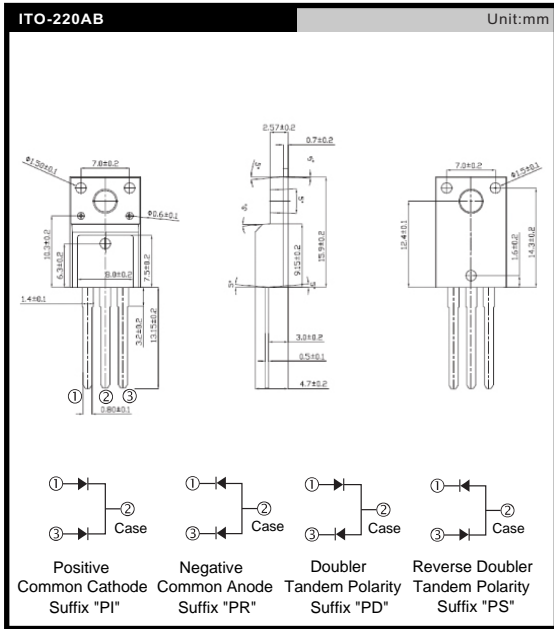
- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

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



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	I_R	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,

RATINGS AND CHARACTERISTIC CURVES

FIG.1- FORWARD CURRENT DERATING CURVE

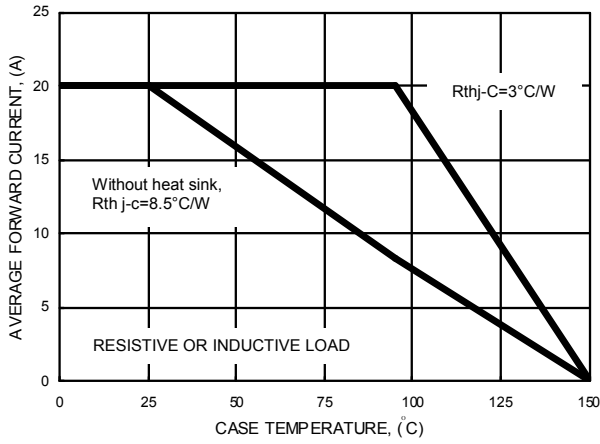


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

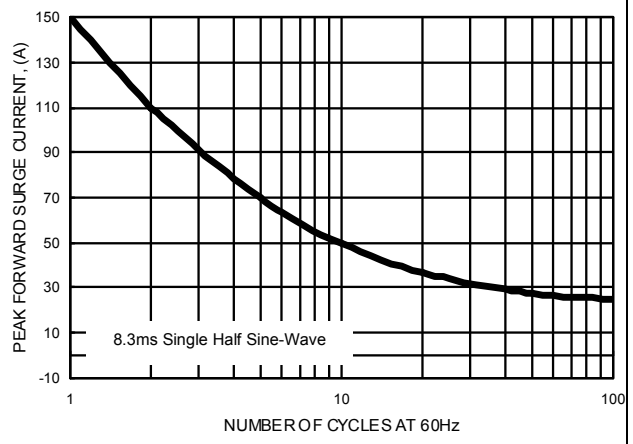


FIG.3- TYPICAL REVERSE CHARACTERISTICS

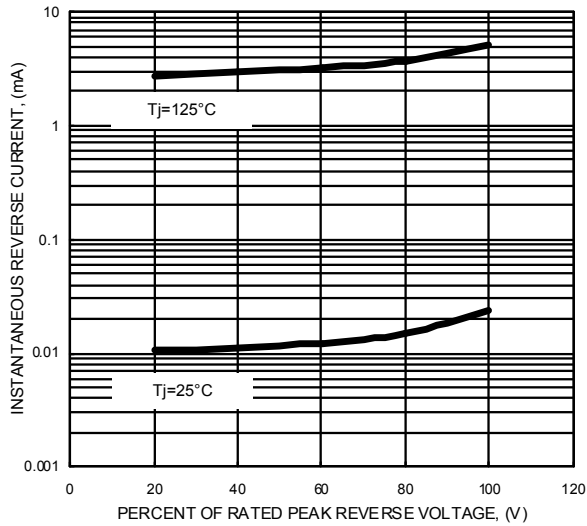


FIG.4- TYPICAL FORWARD CHARACTERISTICS

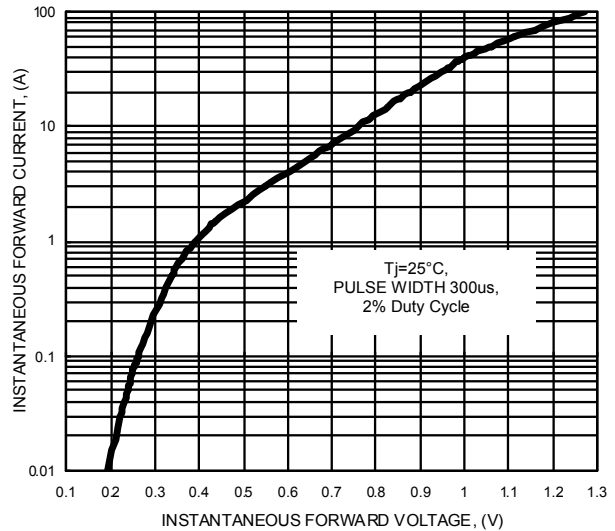


FIG.5- TYPICAL JUNCTION CAPACITANCE

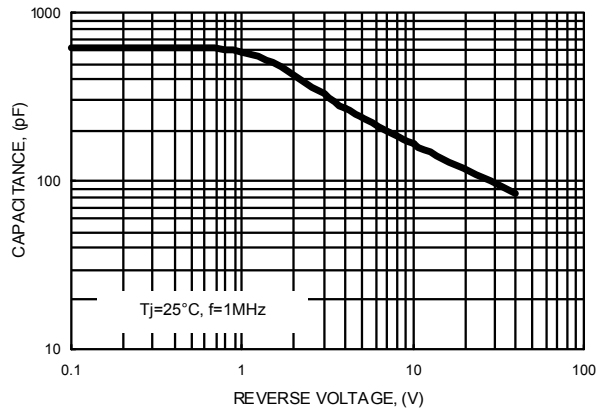


FIG.6- DC REVERSE VOLTAGE DERATING CURVE

