Pb Free Plating Product

SDD10N01 thru SDD10N07

10 Ampere Heatsink Dual Tandem Polarity General Purpose Rectifier Diodes

Features

- ✶ Latest&matured mesa technology with high reliablity
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

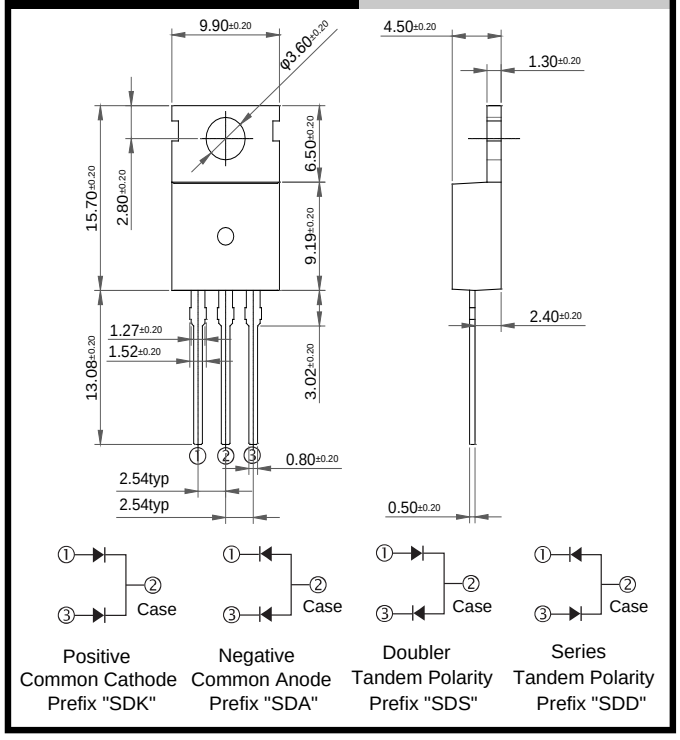
Application

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

Mechanical Data

- ✶ Case: Heatsink TO-220CE package
- ✶ 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: 2.0 gram approximately

TO-220AB Unit:mm



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)									
PARAMETER	SYMBOL	SDD 10N01	SDD 10N02	SDD 10N03	SDD 10N04	SDD 10N05	SDD 10N06	SDD 10N07	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	10							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	125							A
Maximum instantaneous forward voltage (Note 1) @ 5 A	V_F	1.1							V
Maximum reverse current @ rated V_R T_J=25°C	I_R	5							μA
T_J=125°C		200							
Typical junction capacitance (Note 2)	C_J	30							pF
Typical thermal resistance	$R_{\theta JC}$	3							°C/W
Operating junction temperature range	T_J	- 55 to +150							°C
Storage temperature range	T_{STG}	- 55 to +150							°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Measured at 1 MHz and applied reverse voltage of 4.0 V DC.

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 MAXMUM FORWARD CURRENT DERATING CURVE

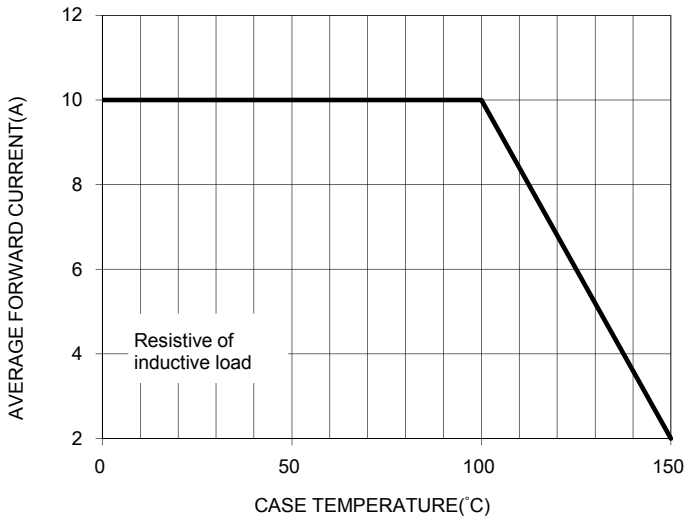


FIG. 2 TYPICAL REVERSE CHARACTERISTICS PER LEG

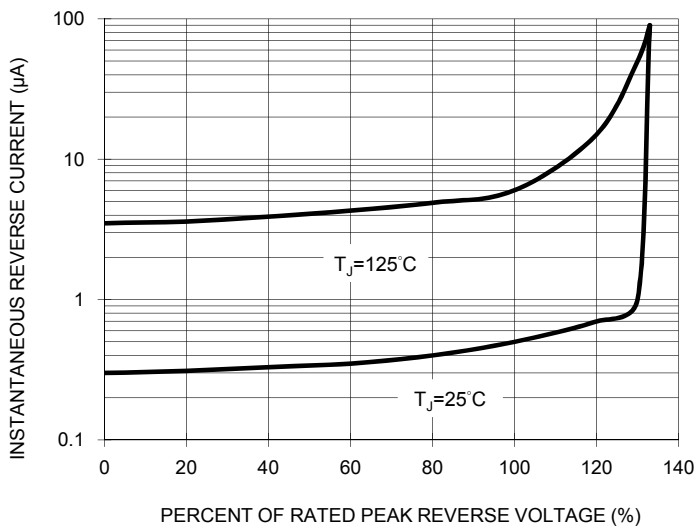


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

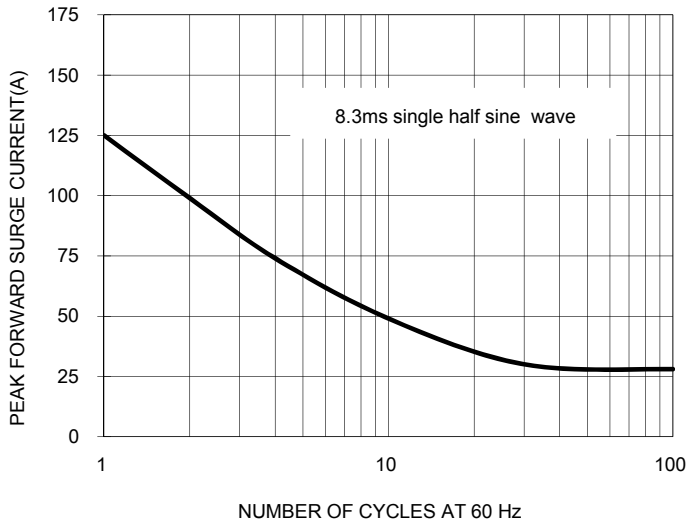


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

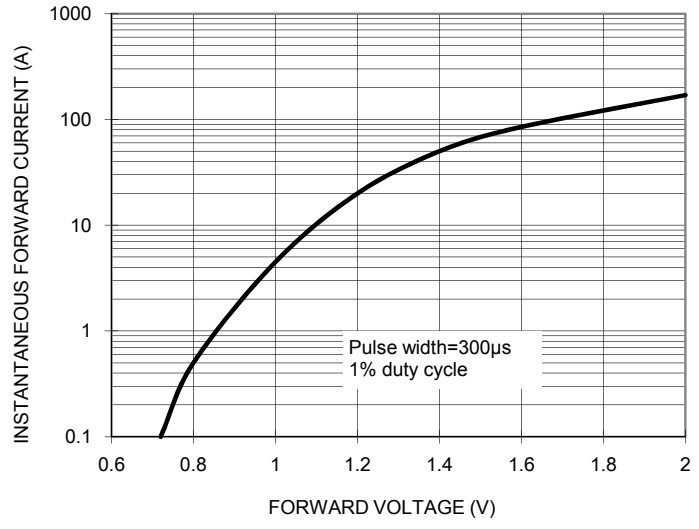


FIG. 5 TYPICAL JUNCTION CAPACITANCE