

Pb Free Plating Product

SDD10N01 thru SDD10N07



10 Ampere Heatsink Dual Tandem Polarity General Purpose Rectifier Diodes

Features

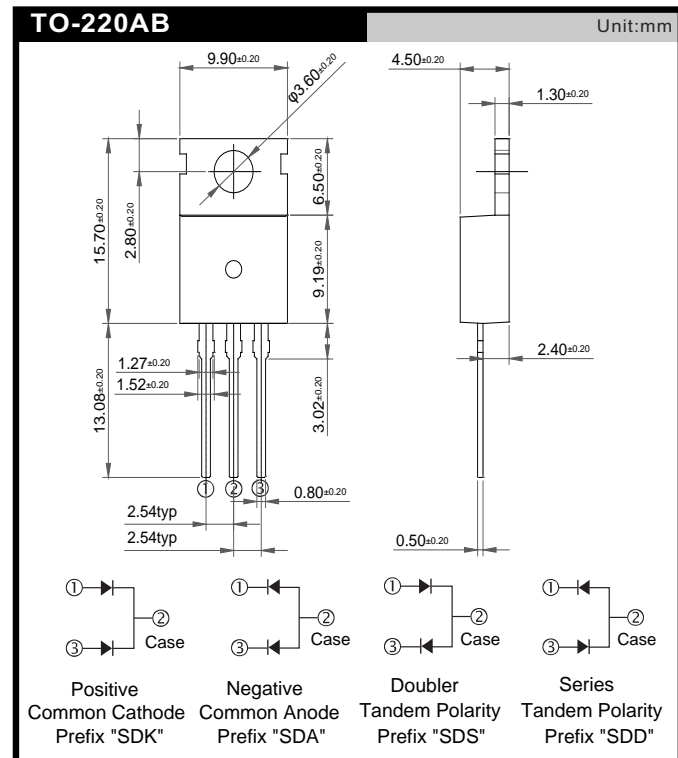
- ★ Latest&matured mesa technology with high reliability
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C 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 @ 5 A (Note 1)	V _F	1.1							V
Maximum reverse current @ rated V _R	I _R	T _J =25°C							μA
		T _J =125°C							
Typical junction capacitance (Note 2)	C _J	30							pF
Typical thermal resistance	R _{θJC}	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

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

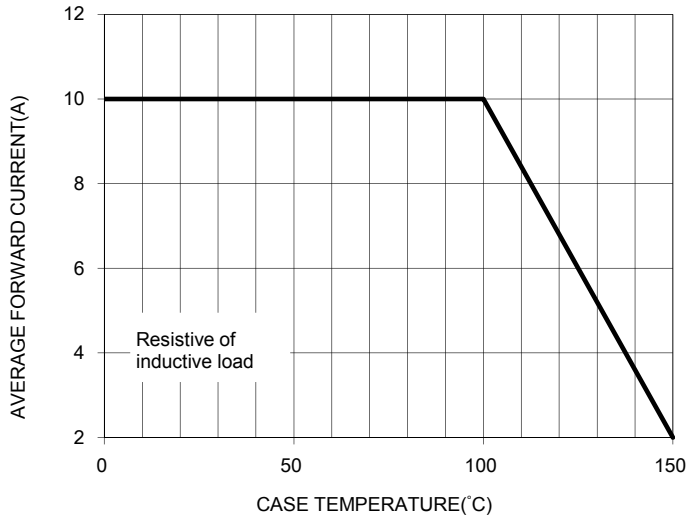


FIG. 2 TYPICAL REVERSE CHARACTERISTICS PER LEG

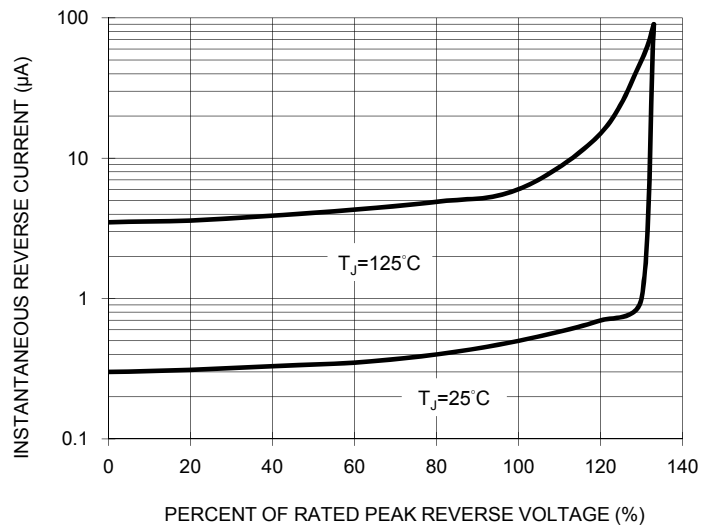


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

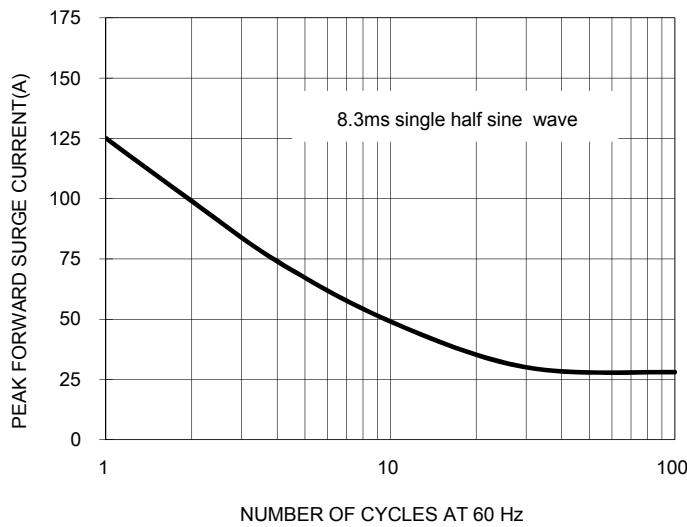


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

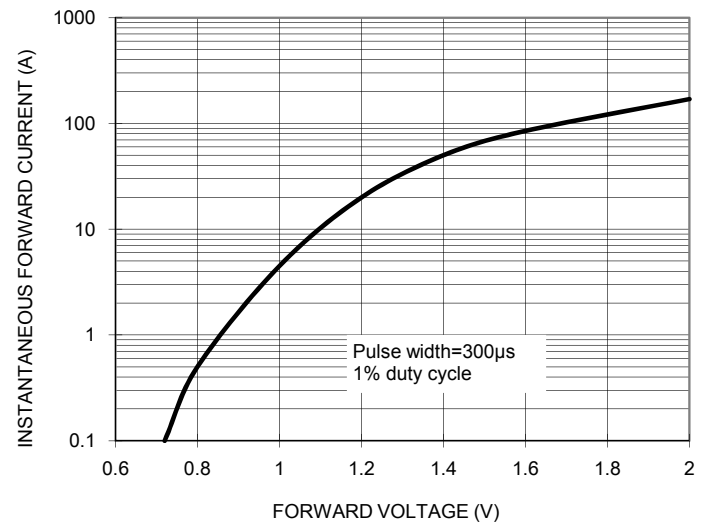


FIG. 5 TYPICAL JUNCTION CAPACITANCE

