

Pb Free Plating Product

GP1601A thru GP1607A



16.0 Amperes Heatsink Dual Common Anode General Purpose Rectifiers

Features

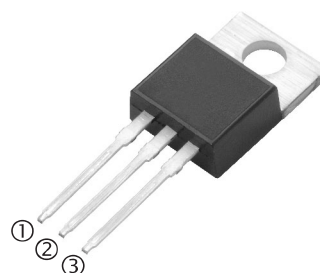
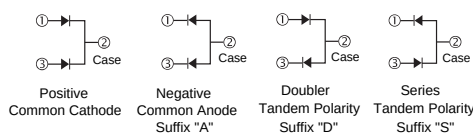
- ★ **Avalanche energy rated(100% guarantee)**
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Application

- ★ PhotoVoltaic BY-PASS DIODE
- ★ PhotoVoltaic High-amperage Combiner Boxes
- ★ Alternator(Automotive Wireharness/Capacitor Bank)

Mechanical Data

- ★ Case: TO-220AB open metal heatsink 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: 2.2 gram approximately

TO-220AB/TO-220-3L**Internal Configuration****MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)**

PARAMETER	SYMBOL	GP 1601A	GP 1602A	GP 1603A	GP 1604A	GP 1605A	GP 1606A	GP 1607A	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	$I_{F(AV)}$	16							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150							A
Maximum instantaneous forward voltage (Note 1) @ 8 A	V_F	1.1							V
Maximum reverse current @ rated V_R $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	I_R	10 250							μA
Typical junction capacitance (Note 2)	C_J	50							pF
Typical thermal resistance	$R_{\theta JC}$	1.5							$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 55 to +150							$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 to +150							$^\circ\text{C}$

Note 1: Pulse test with $PW=300\mu\text{s}$, 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 MAXIMUM FORWARD CURRENT DERATING CURVE

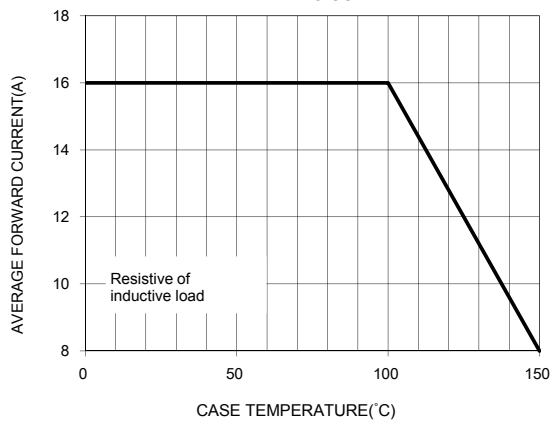


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

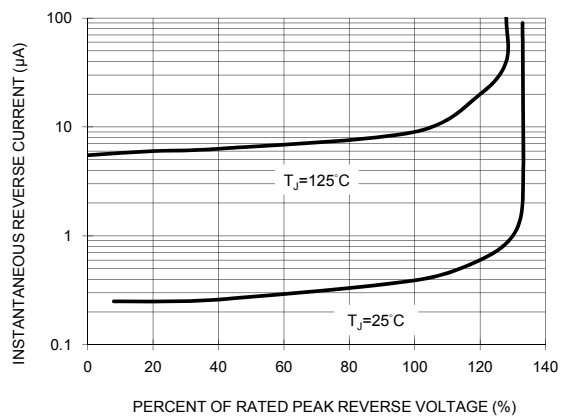


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

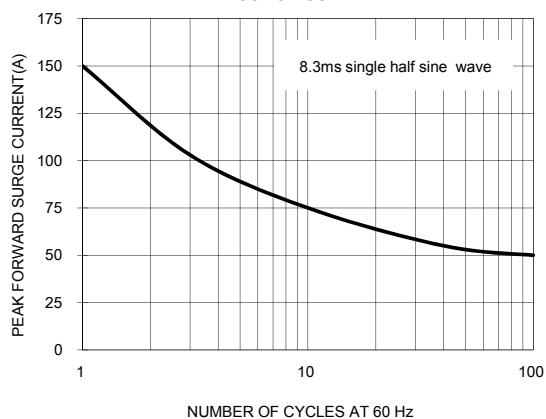


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

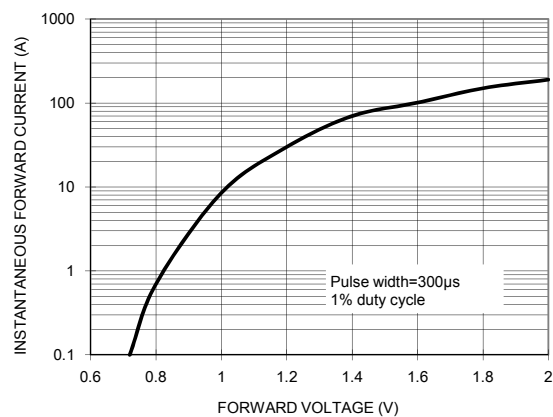
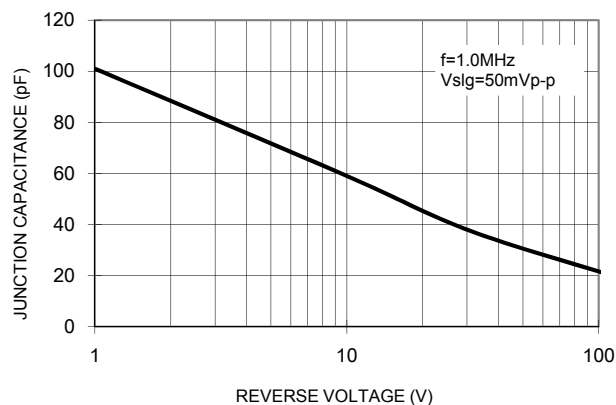
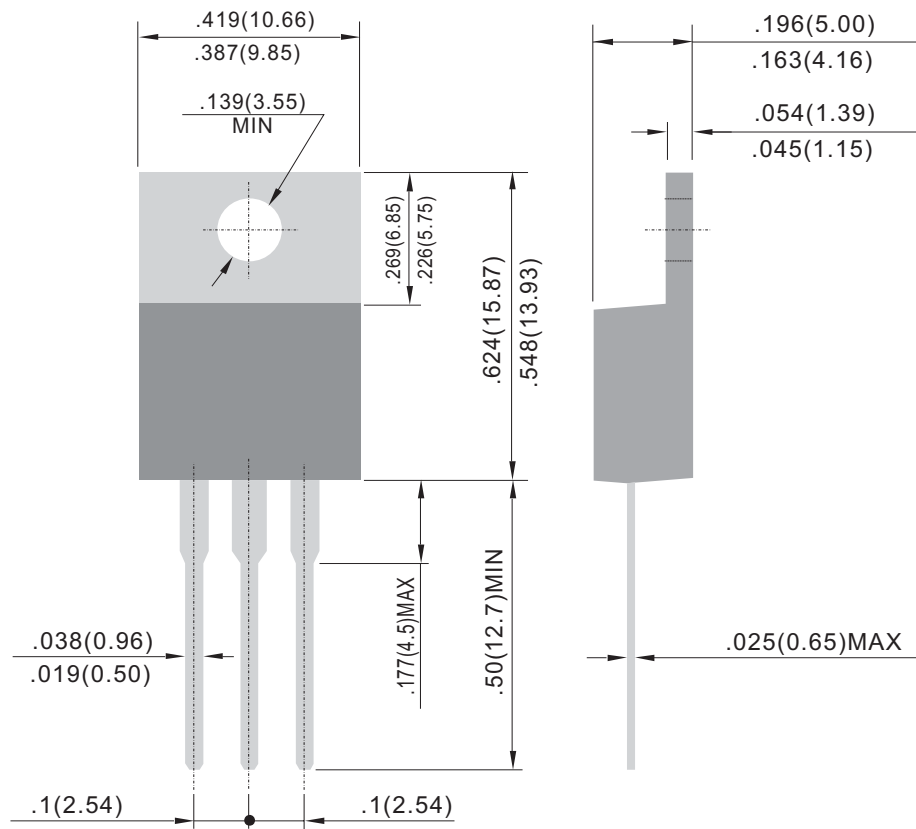


FIG. 5 TYPICAL JUNCTION CAPACITANCE



TO-220AB/TO-220-3L Package Outline Dimensions:



Unit : inch (mm)