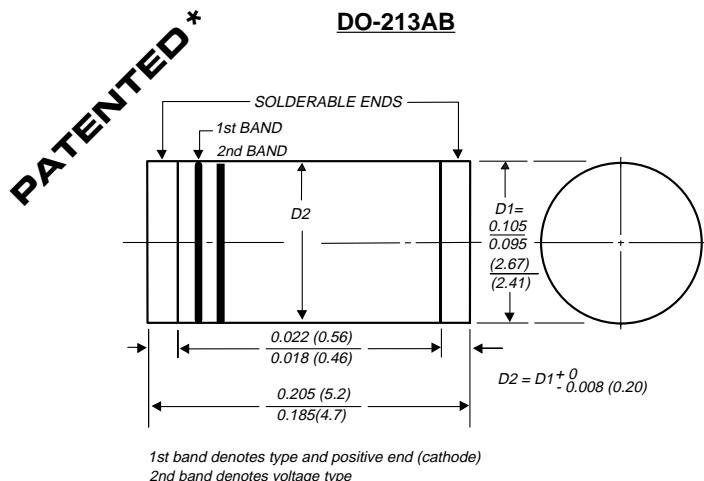


1N6478 THRU 1N6484

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere



Dimensions in inches and (millimeters)

* Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306

SUPERRECTIFIER®

FEATURES

- ♦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ♦ For surface mount applications
- ♦ High temperature metallurgically bonded construction
- ♦ Glass passivated cavity-free junction
- ♦ Capable of meeting environmental standards of MIL-S-19500
- ♦ High temperature soldering guaranteed: 450°C/5 seconds at terminals. Complete device submersible temperature of 265°C for 10 seconds in solder bath



MECHANICAL DATA

Case: JEDEC DO-213AB molded plastic over glass body
Terminals: Plated terminals, solderable per MIL-STD-750, Method 2026

Polarity: Two bands indicate cathode end - 1st band denotes device type and 2nd band denotes repetitive peak reverse voltage rating

Mounting Position: Any

Weight: 0.0046 ounce, 0.116 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Standard recovery time device: 1st band is White	SYMBOLS	1N 6478	1N 6479	1N 6480	1N 6481	1N 6482	1N 6483	1N 6484	UNITS
Polarity color bands (2nd Band)		Gray	Red	Orange	Yellow	Green	Blue	Violet	
* Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
* Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
* Maximum average forward rectified current at	$I_{(AV)}$	1.0							Amp
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load at $T_A=75^\circ\text{C}$ (JEDEC Method)	I_{FSM}	30.0							Amps
* Maximum instantaneous forward voltage at 1.0A $T_A=25^\circ\text{C}$ $T_A=75^\circ\text{C}$	V_F	1.1 1.0							Volts
* Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	10.0 200.0							μA
* Maximum full load reverse current, full cycle average at $T_A=75^\circ\text{C}$	$I_{R(AV)}$	100.0							μA
* Typical junction capacitance (NOTE 1)	C_J	8.0							pF
* Maximum thermal resistance (NOTE 2) (NOTE 3)	$R_{\theta JA}$ $R_{\theta JT}$	50.0 20.0							$^\circ\text{C/W}$
* Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175							$^\circ\text{C}$

NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
 - (2) Thermal resistance from junction to terminal, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal
 - (3) Thermal resistance from junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal
- * JEDEC Registered Values

RATINGS AND CHARACTERISTIC CURVES 1N6478 THRU 1N6484

FIG. 1 - FORWARD CURRENT DERATING CURVE

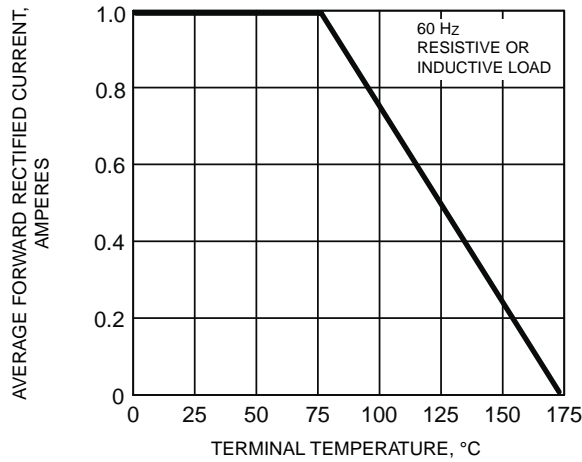


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

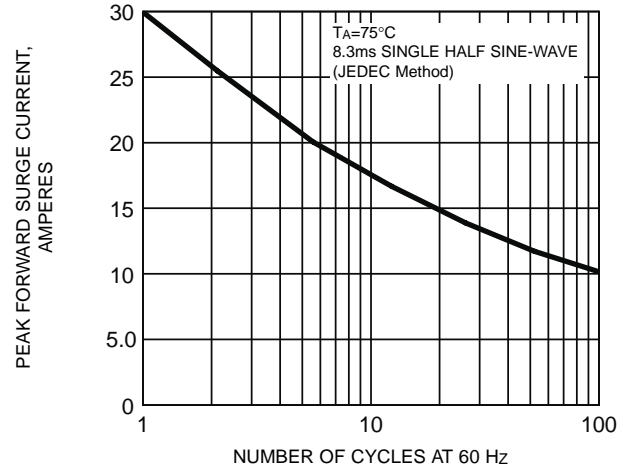


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

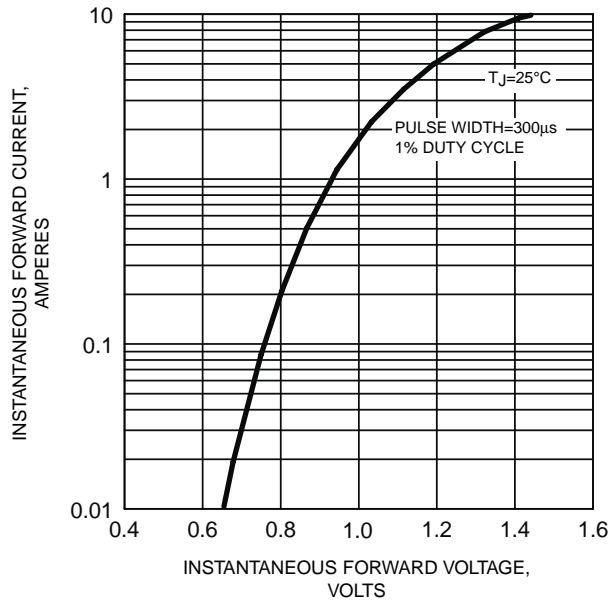


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

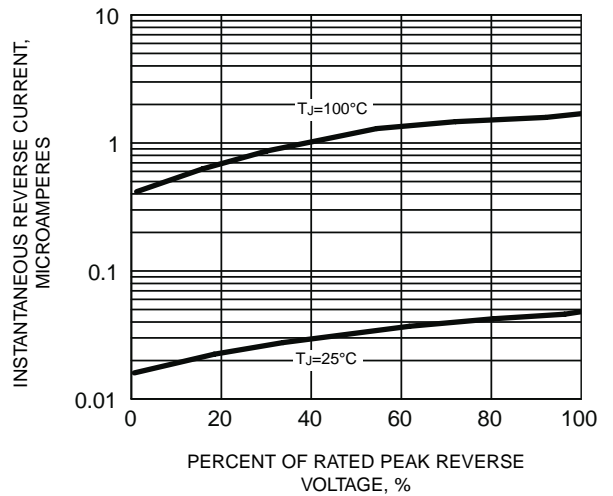


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

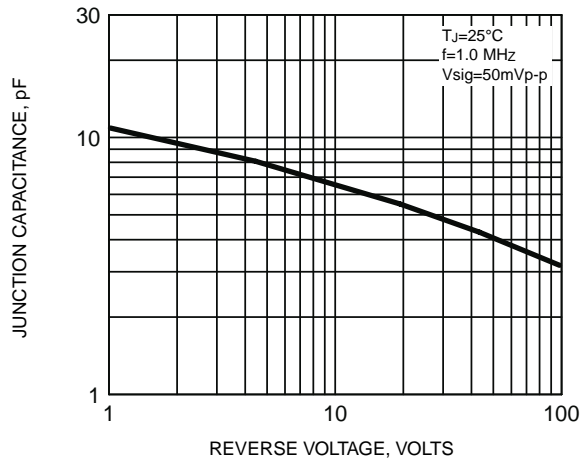


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

