



TAYCHIPST

SOFT RECOVERY FAST-SWITCHING PLASTIC RECTIFIERS

BY550-50 THRU BY550-1000

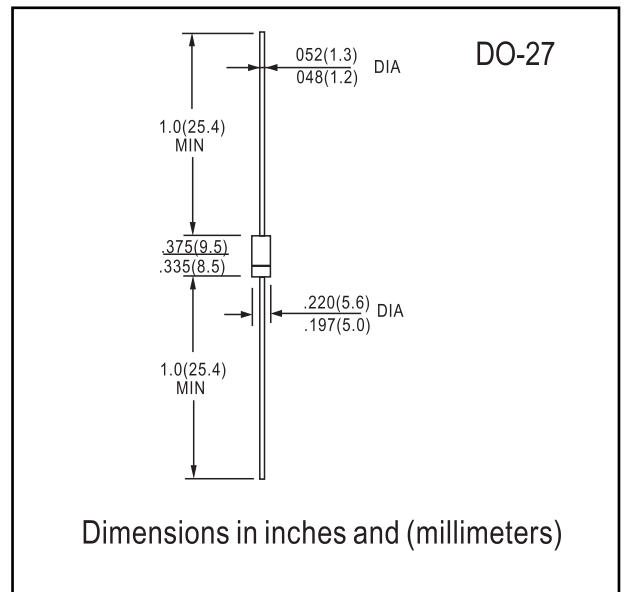
50V-1000V 5.0A

FEATURES

- Low cost
- Diffused junction
- High current capability
- The plastic material carries U/L recognition 94V-0
- High temperature soldering guaranteed: 260 °C/10 seconds at terminals
- Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- *Case:* JEDEC DO-201AD molded plastic body
- *Terminals:* Plated axial lead solderable per MIL-STD-750, method 2026
- *Polarity:* Color band denotes cathode end
- *Mounting Position:* Any
- *Weight:* 0.042ounce, 1.1 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		BY 550-50	BY 550-100	BY 550-200	BY 550-400	BY 550-600	BY 550-800	BY 550-1000	UNITS
Maximum recurrent 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 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	5.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	300.0							A
Maximum instantaneous forward voltage @ 5.0 A	V_F	1.1							V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	I_R	10.0 100.0							μA
Typical junction capacitance (Note1)	C_J	80							pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	15							$^\circ C/W$
Operating junction temperature range	T_J	- 55 ---- + 150							$^\circ C$
Storage temperature range	T_{STG}	- 55 ---- + 150							$^\circ C$

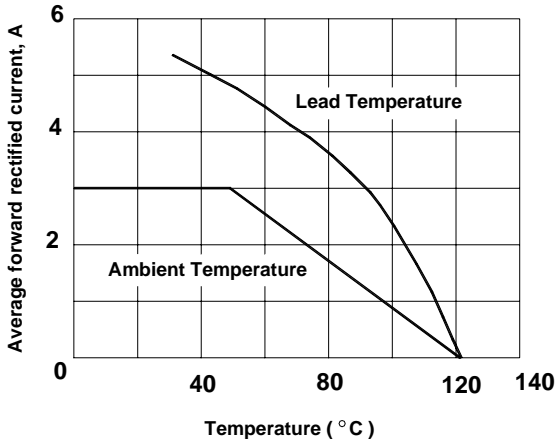
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V

2. Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P. C. Board Mounted

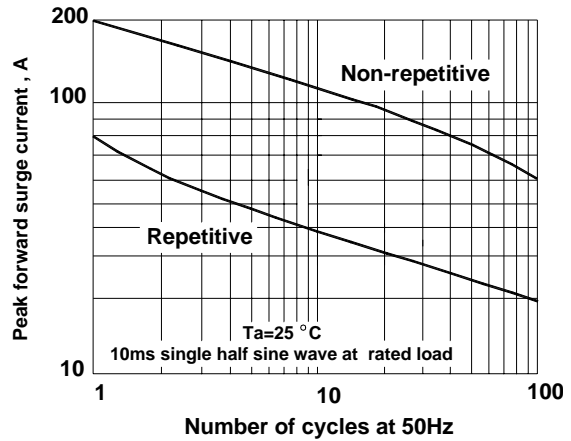


RATINGS AND CHARACTERISTIC CURVES BY550-50 THRU BY550-1000

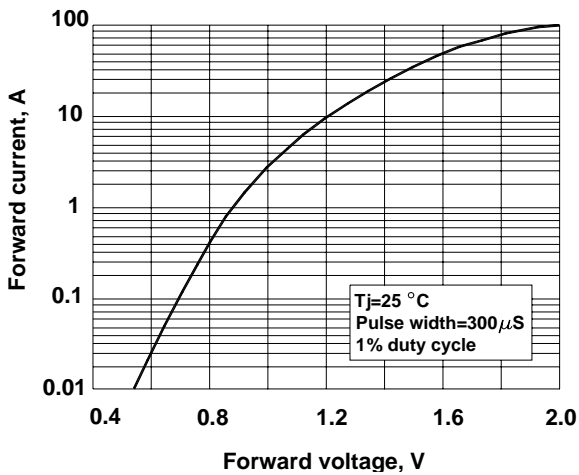
Forward current derating curve



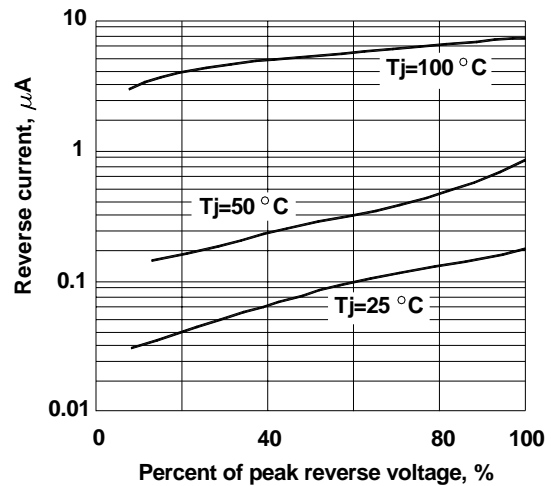
Maximum peak forward surge current



Typical Forward Characteristics



Typical Reverse Characteristics



Typical junction capacitance

