

PFS

SCHOTTKY BARRIER RECTIFIERS

PS4512

VOLTAGE RANGE
CURRENT

45 Volts
12 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guardring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

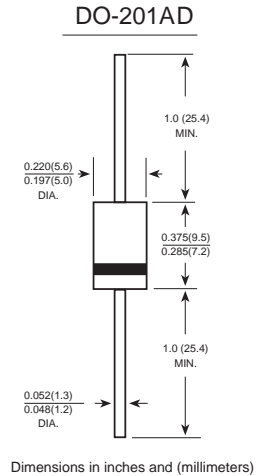
- Case : R-1 molded plastic body
- Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.007 ounce, 0.20 gramS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	PS4512	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	45	VOLTS
Maximum RMS voltage	V_{RMS}	32	VOLTS
Maximum DC blocking voltage	V_{DC}	45	VOLTS
Maximum average forward rectified current	$I_{(AV)}$	12	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200	Amps
Maximum instantaneous forward voltage at 12A	V_F	0.52	Volts
Maximum DC reverse current $T_J=25^{\circ}C$ at rated DC blocking voltage $T_J=100^{\circ}C$	I_R	0.1 50	mA
Typical thermal resistance	$R_{\theta JC}$	3.3	$^{\circ}C/W$
Operating junction temperature range	T_J	-50 to +200	$^{\circ}C$
Storage temperature range	T_{STG}	-50 to +200	$^{\circ}C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



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VOLTAGE RANGE 45 Volts
CURRENT 12 Ampere

FIG. 1- FORWARD CURRENT DERATING CURVE

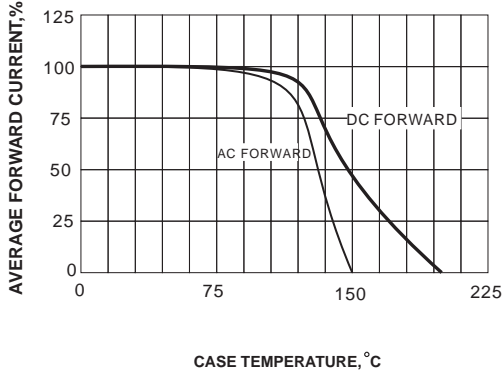


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

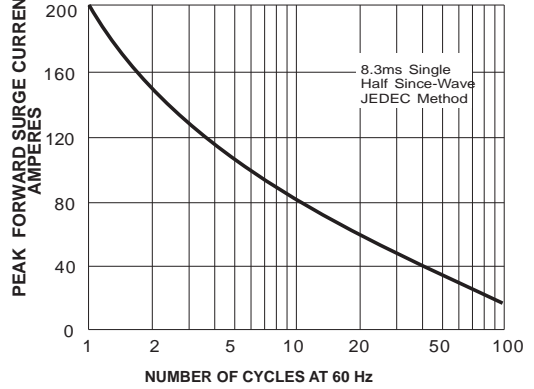


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

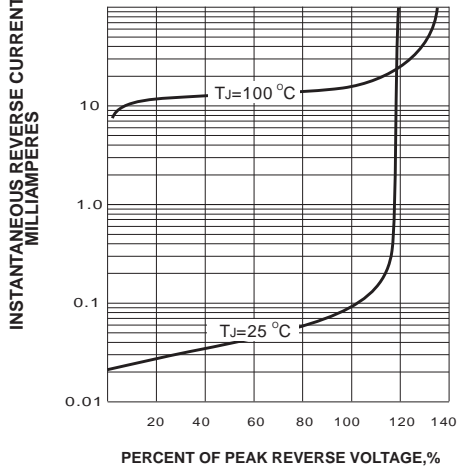


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

