

FEATURES

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

Case: JEDEC DO-214AB, molded plastic

Terminals: Solderable per

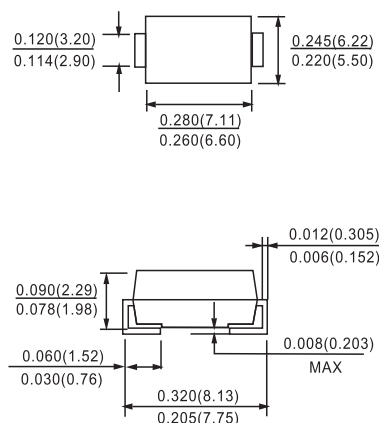
MIL-STD-202, Method 208

Polarity: Color band denotes cathode

Weight: 0.003 ounces, 0.093 grams

Mounting position: Any

DO-214AB(SMC)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		ER3A	ER3B	ER3C	ER3D	ER3E	ER3G	ER3J	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current @T _A =75°C	I _{F(AV)}	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	100							A
Maximum instantaneous forward voltage @ 3.0A	V _F	0.95				1.25		1.7	V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =125°C	I _R	5.0 300							μA
Maximum reverse recovery time (Note 1)	t _{rr}	35							ns
Typical junction capacitance (Note 2)	C _J	95							pF
Typical thermal resistance (Note 3)	R _{θJA}	40							°C/W
Operating junction temperature range	T _J	- 55 ----- + 150							°C
Storage temperature range	T _{STG}	- 55 ----- + 150							°C

NOTE: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $t_{rr} = 0.25\text{A}$.

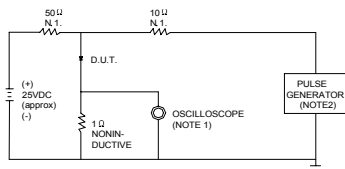
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient.

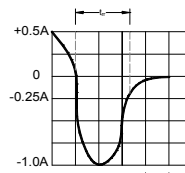
RATINGS AND CHARACTERISTIC CURVES

ER3A THRU ER3J

FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1MΩ. 22pF.
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50Ω.



SET TIME BASE FOR 10 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

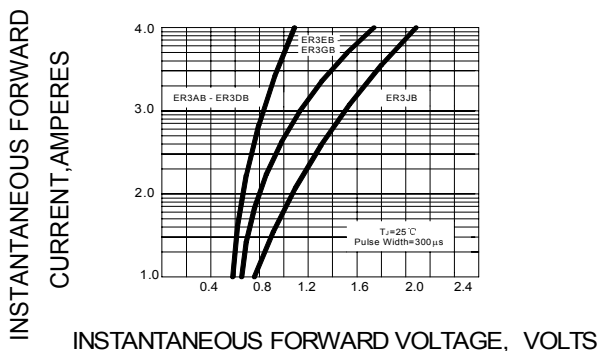


FIG.3 -- FORWARD DERATING CURVE

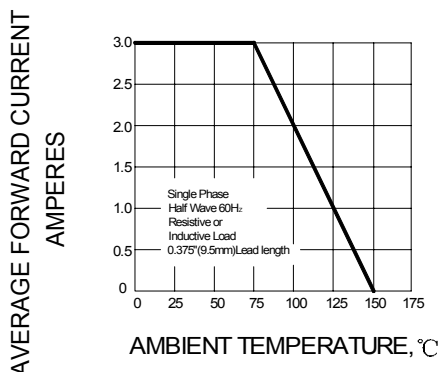


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

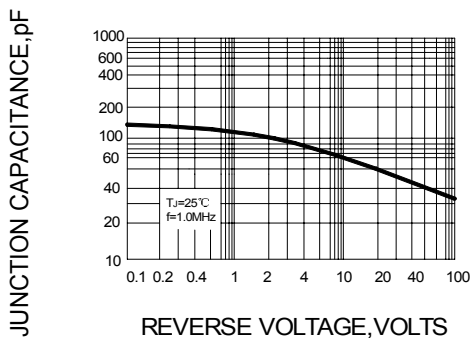


FIG.5 -- PEAK FORWARD SURGE CURRENT

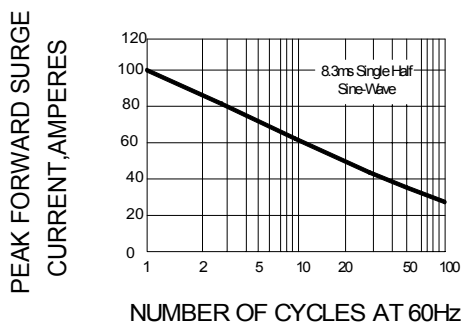
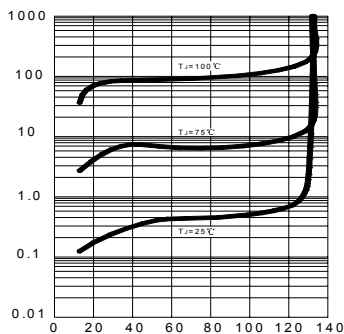


FIG.6 -- TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED PEAK REVERSE VOLTAGE. %