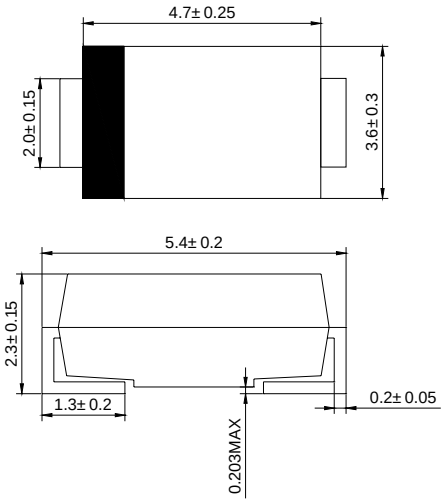
ER2A-ER2J

Surface Mount Rectifiers

VOLTAGE RANGE: 50 --- 600 V
CURRENT: 2.0 A

SMB



Dimensions in millimeters

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-214AA,molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.003 ounces,0.093 grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

		ER2A	ER2B	ER2C	ER2D	ER2E	ER2G	ER2J	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℃	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	50							A
Maximum instantaneous forward voltage @ 2.0A	V_F	0.95				1.25		1.7	V
Maximum reverse current @T_A=25℃	I_R	5.0							μA
at rated DC blocking voltage @T_A=125℃		200							
Maximum reverse recovery time (Note 1)	t_{rr}	35							ns
Typical junction capacitance (Note 2)	C_J	62							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	40							℃/W
Operating junction temperature range	T_J	- 55 ----- + 150							℃
Storage temperature range	T_{STG}	- 55 ----- + 150							℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

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

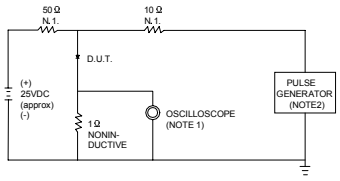
3.Thermal resistance junction to ambient.

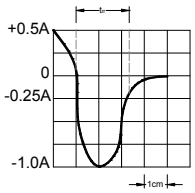
ER2A-ER2J

Surface Mount Rectifiers

Ratings AND Charactieristic Curves

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=50 Ω.

SET TIME BASE FOR 10/20 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

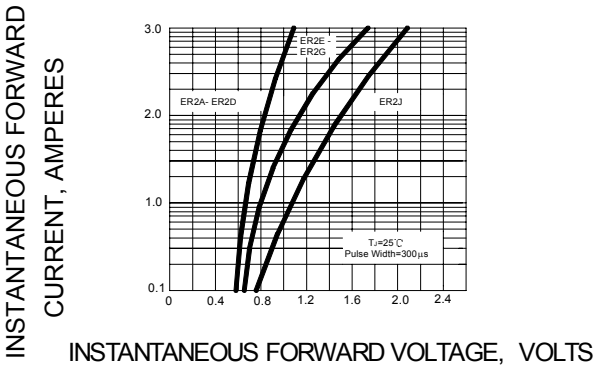


FIG.3 -- FORWARD DERATING CURVE

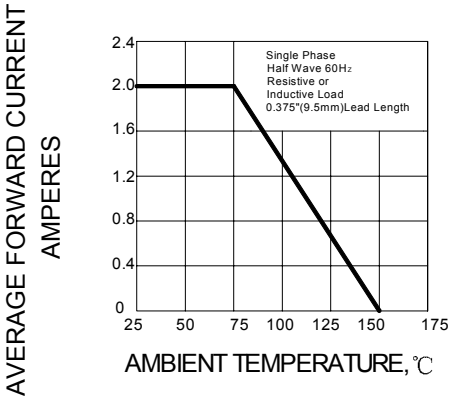


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

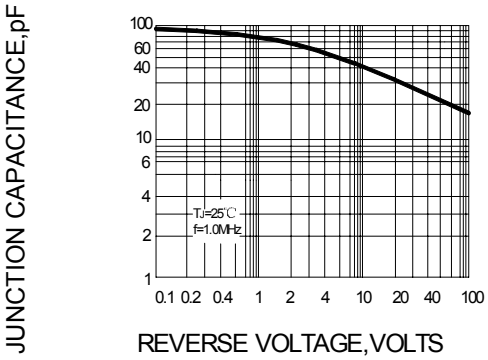


FIG.5 -- PEAK FORWARD SURGE CURRENT

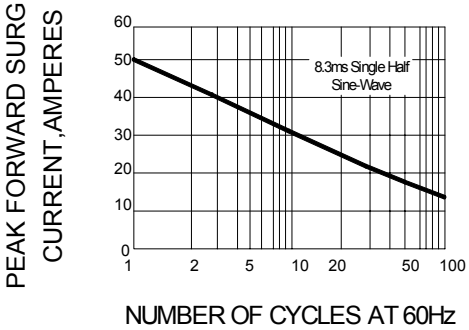


FIG.6 -- TYPICAL REVERSE CHARACTERISTICS