RE2500A - RE5000A

SURFACE MOUNT HIGH VLTAGE RECTIFEER DIODES

VOLTAGE RANGE: 2500V - 5000V
CURRENT: 0.2 A

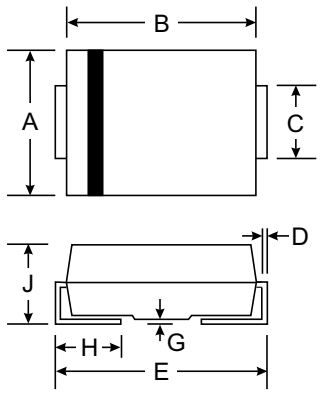
Features

- Construction utilizes void-free
- molded plastic technique
- Low reverse leakage
- High forward surge current capability

Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)

RoHS COMPLIANT



SMA(DO-214AC)		
Dim	**Min**	**Max**
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

T_A = 25 C unless otherwise specified

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

Characteristic	Symbol	RE2500A	RE3000A	RE4000A	RE5000A	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	2500	3000	4000	5000	V
Maximum RMS voltage	V_{RMS}	1750	2100	2800	3500	V
Maximum DC blocking voltage	V_{DC}	2500	3000	4000	5000	V
Maximum average forward rectified current 0.375"(9.5mm) lead length (see fig.1)	$I_{(AV)}$	0.2				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0				A
Maximum instantaneous forward voltage at 0.2 A	V_F	3.0	4.0	5.0		V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50				μA
Typical junction capacitance (NOTE 1)	C_J	15.0				pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0				°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +175				°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

RATINGS AND CHARACTERISTIC CURVES RE2500A THRU RE5000A

FIG. 1- FORWARD CURRENT DERATING CURVE

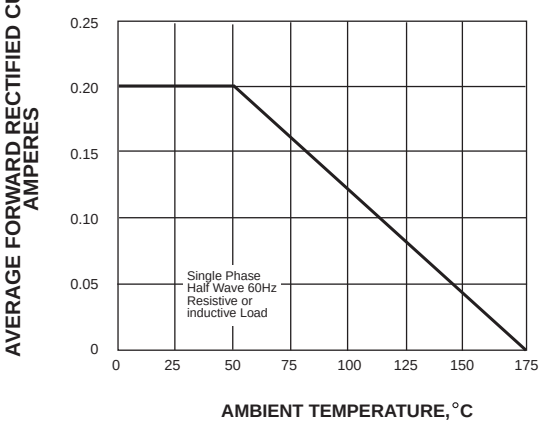


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

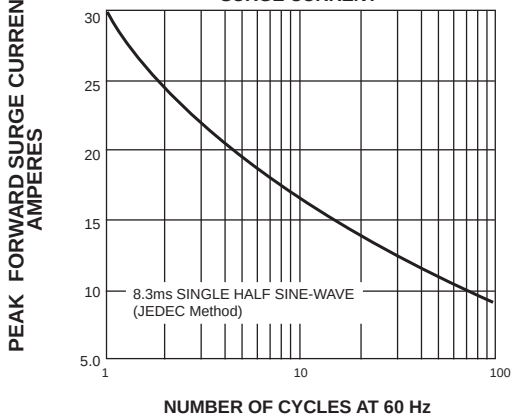


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

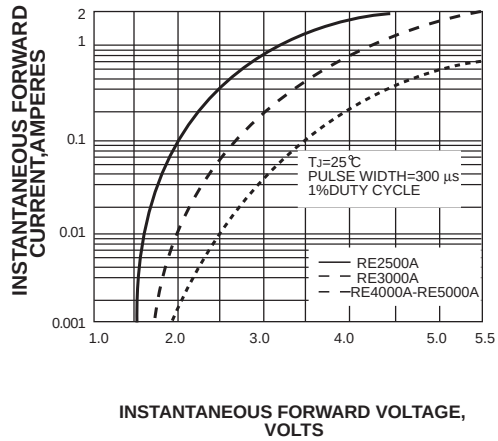


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

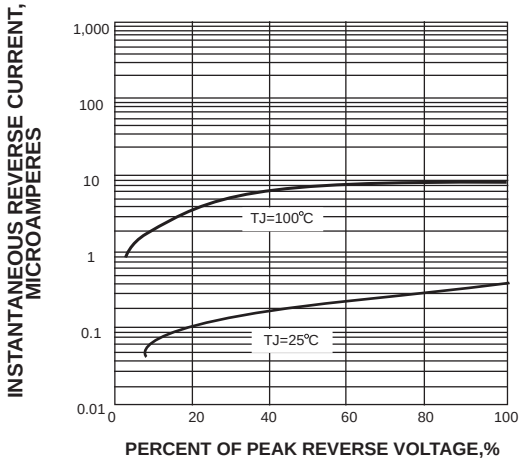


FIG. 5-TYPICAL JUNCTION CAPACITANCE

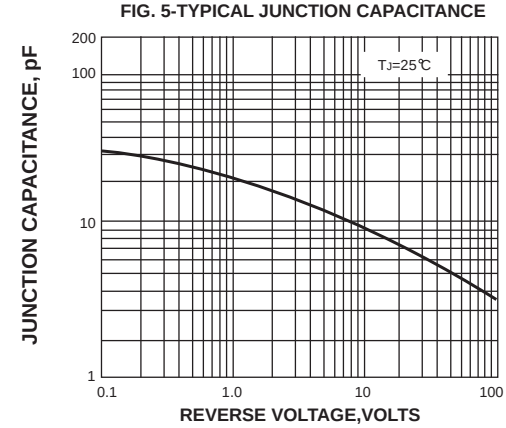
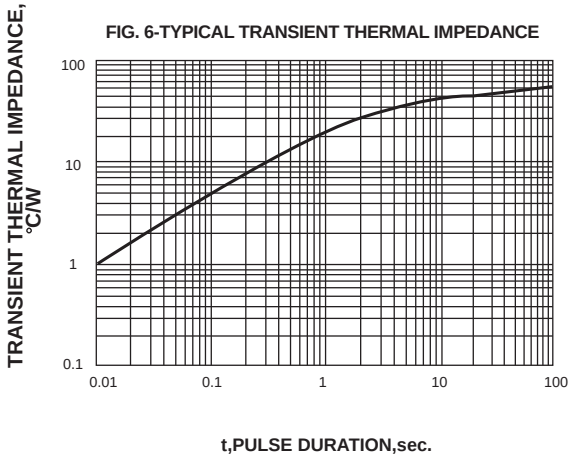



FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE