

VOLTAGE RANGE: 1200 - 2000 V

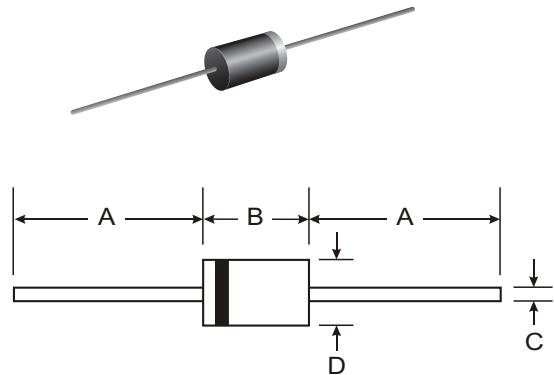
CURRENT: 0.5 A

Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon Alcohol , Isopropanol and similar solvents

Mechanical Data

- Case: DO - 41 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-41		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
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	FR05 -12	FR05 -14	FR05 -15	FR05 -16	FR05 -18	FR05 -20	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	1200	1400	1500	1600	1800	2000	V
Maximum RMS voltage	V _{RMS}	840	980	1050	1120	1260	1400	V
Maximum DC blocking voltage	V _{DC}	1200	1400	1500	1600	1800	2000	V
Maximum average forward rectified current 9.5mm lead length, @T _A =75°C	I _{F(AV)}	0.5						A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	30.0						A
Maximum instantaneous forward voltage @ 0.5 A	V _F	2.0						V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	5.0 100.0						μ A
Maximum reverse recovery time (Note1)	t _{rr}	500						ns
Typical junction capacitance (Note2)	C _J	12						pF
Typical thermal resistance (Note3)	R _{θJA}	55						°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=0.5A, I_R=1A_{RR} =0.25A_{rr}

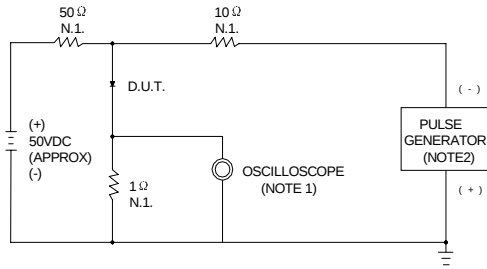
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.



SUNMATE

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



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

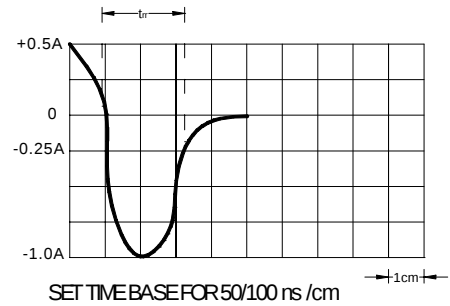


FIG.2 –FORWARD DERATING CURVE

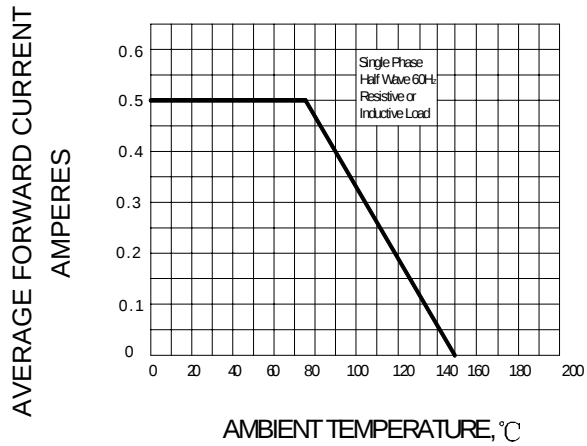


FIG.3 –PEAK FORWARD SURGE CURRENT

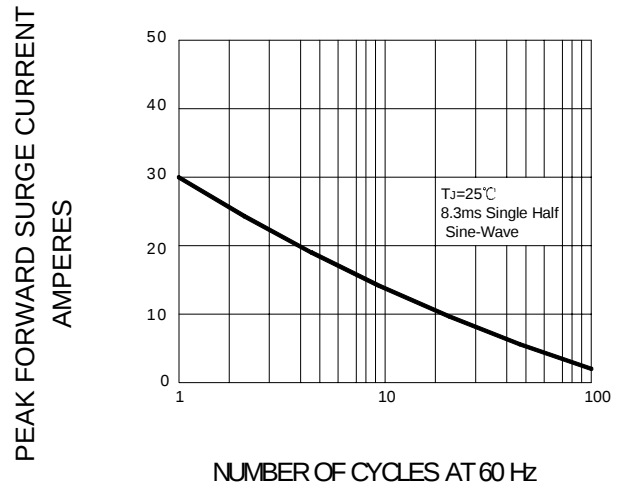


FIG.4-TYPICAL FORWARD CHARACTERISTIC

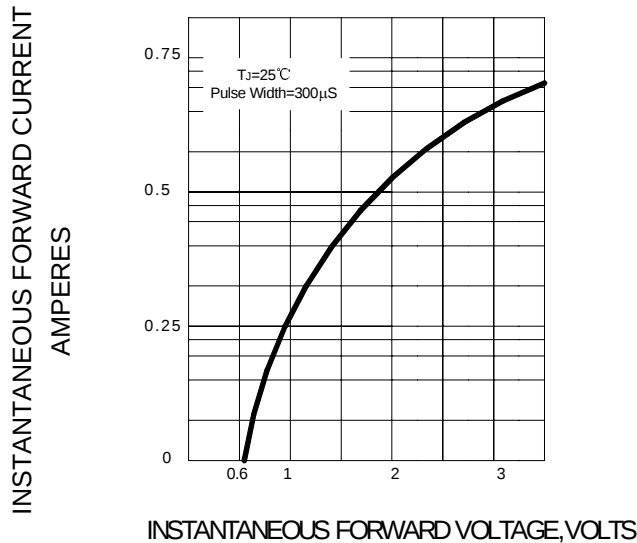


FIG.5- TYPICAL JUNCTION CAPACITANCE

