DSK Diode Semiconductor Korea   *ERC04-02---ERC04-10*

PLASTIC SILICON RECTIFIERS

VOLTAGE RANGE: 200 --- 1000 V
CURRENT: 1.2 A

FEATURES

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

MECHANICAL DATA

◇ Case:JEDEC DO--15,molded plastic
◇ Terminals: Axial lead ,solderable per
 MIL- STD-202,Method 208
◇ Polarity: Color band denotes cathode
◇ Weight: 0.014 ounces,0.39 grams
◇ Mounting position: Any

DO - 15

$\Phi\,0.8\pm0.1$
$\Phi\,3.3\pm0.3$
25.4 MIN
25.4 MIN
6.3 ± 0.5

Dimensions in millimeters
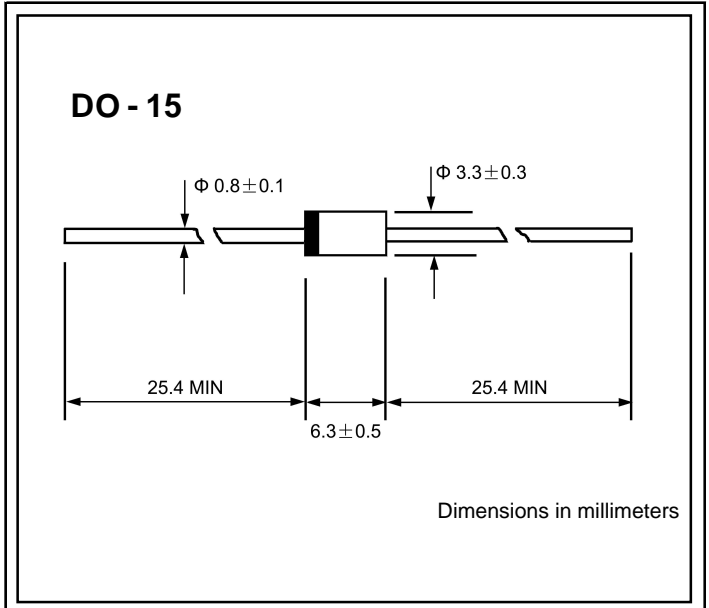
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

		ERC04 -02	ERC04 -04	ERC04 -06	ERC04 -10	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	1000	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.2				A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	100				A
Maximum instantaneous forward voltage @ 4.0 A	V_F	1.1				V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	10 50				μ A
Typical junction capacitance (Note1)	C_J	20				pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	40				℃/W
Operating junction temperature range	T_J	- 55---- + 150				℃
Storage temperature range	T_{STG}	- 55 ---- + 150				℃

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

 2. Thermal resistance from junction to ambient.
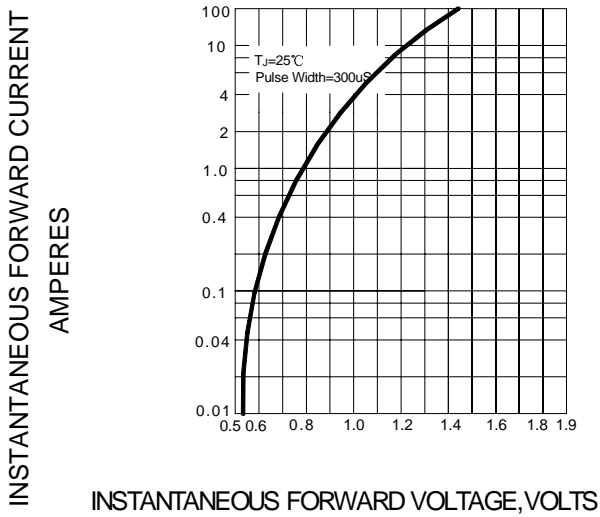
www.diode.kr

FIG.1 – FORWARD CHARACTERISTIC

INSTANTANEOUS FORWARD CURRENT AMPERES

$T_J=25℃$
Pulse Width=300uS

INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.2 – JUNCTION CHARACTERISTICS
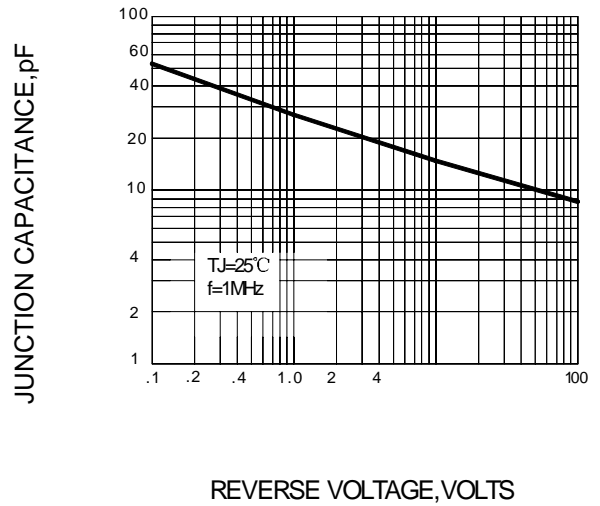
JUNCTION CAPACITANCE, pF

$TJ=25℃$
$f=1MHz$

REVERSE VOLTAGE, VOLTS

FIG.3 –CURRENT DERATING CURVE

PEAK FORWARD SURGE CURRENT AMPERES
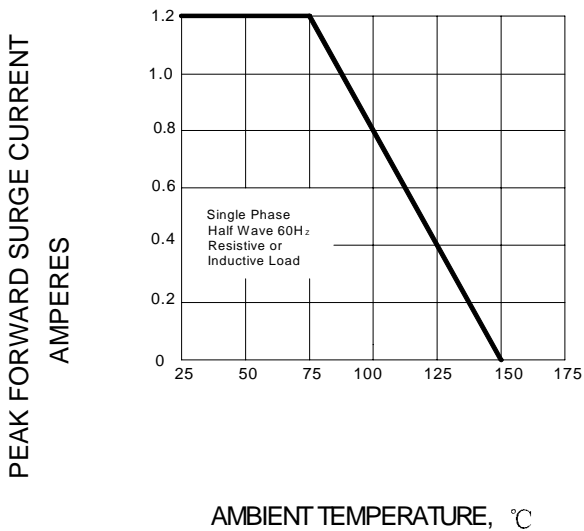
Single Phase
Half Wave 60H$_z$
Resistive or
Inductive Load

AMBIENT TEMPERATURE, ℃

FIG.4 –PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT AMPERES

$T_J=125℃$
8.3ms Single Half
Sine-Wave

NUMBER OF CYCLES AT 60Hz