

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

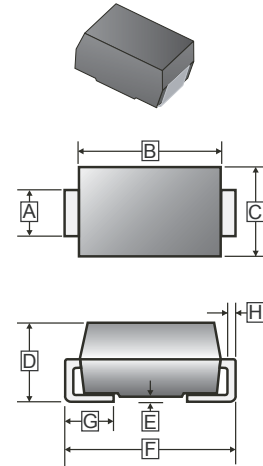
## FEATURES

- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability
- Glass passivated chip

## MECHANICAL DATA

- Case: Molded plastic SMA/DO-214AC
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode
- Mounting position: Any
- Weight: 0.064 gram

### SMA



## PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13' inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.24	1.65	E	-	0.203
B	3.99	4.60	F	4.80	5.28
C	2.50	2.90	G	0.76	1.52
D	1.98	2.44	H	0.15	0.305

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Part Number			Unit
		ES11A	ES12A	ES13A	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	V
Maximum Average Forward Rectified Current. 375" (9.5mm) Lead Length at $T_A=55^\circ C$	$I_F$	1			A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30			A
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	0.92			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ C$	5		$\mu A$
		$T_A=100^\circ C$	100		
Maximum Reverse Recovery Time <sup>1</sup>	$T_{RR}$	15			nS
Typical Thermal Resistance <sup>3</sup>	$R_{\theta JA}$	75			
Typical Junction Capacitance <sup>2</sup>	$C_J$	15			pF
Operating & Storage Temperature	$T_J, T_{STG}$	-55~150			°C

Notes:

1. Reverse Recovery Time test condition :  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 - FORWARD CURRENT DERATING CURVE

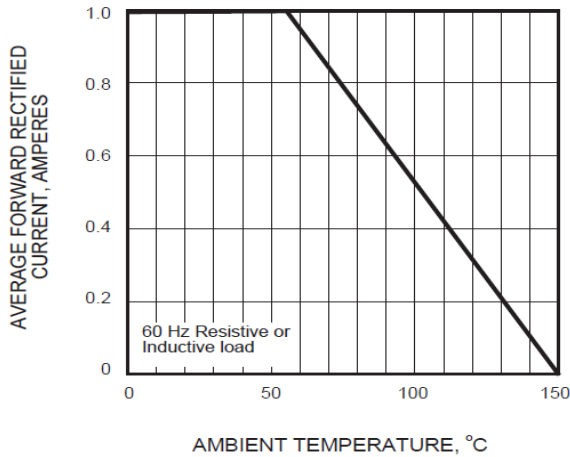


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

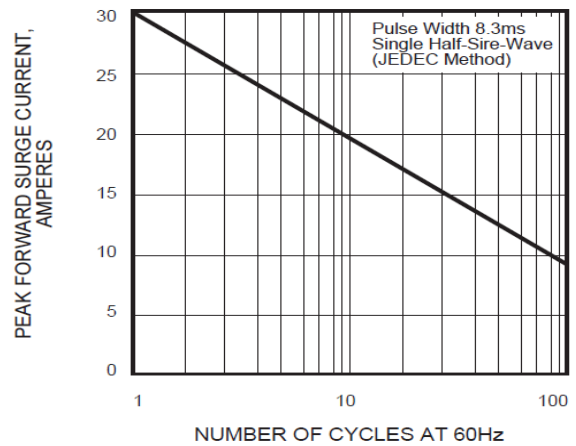


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

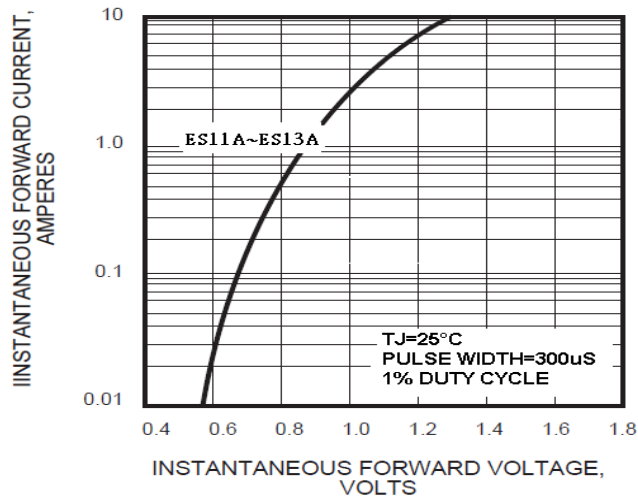


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

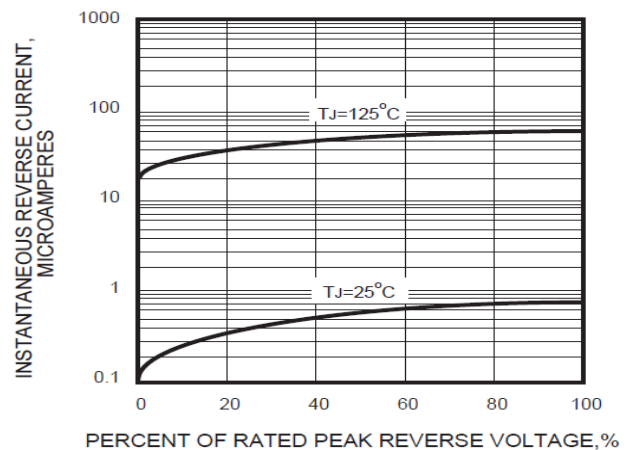


FIG.5 - TYPICAL JUNCTION CAPACITANCE

