

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

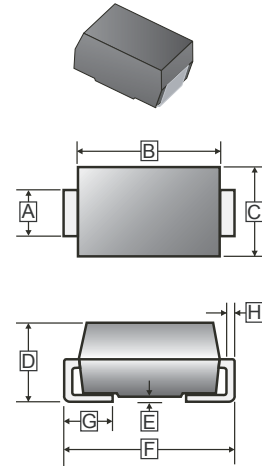
FEATURES

- 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
		ES21A	ES22A	ES23A	ES24A	ES25A	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified $T_A=90^\circ\text{C}$	I_F	2					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	60					A
Maximum Instantaneous Forward Voltage @ 2.0A	V_F	0.9		1.25	1.7	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5					μA
	$T_A=100^\circ\text{C}$	100					
Maximum Reverse Recovery Time ¹	T_{RR}	20		25	35	nS	
Typical Thermal Resistance ³	$R_{\theta JA}$	55					$^\circ\text{C} / \text{W}$
Typical Junction Capacitance ²	C_J	50					pF
Operating & Storage Temperature	T_J, T_{STG}	-55~150					$^\circ\text{C}$

Notes:

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

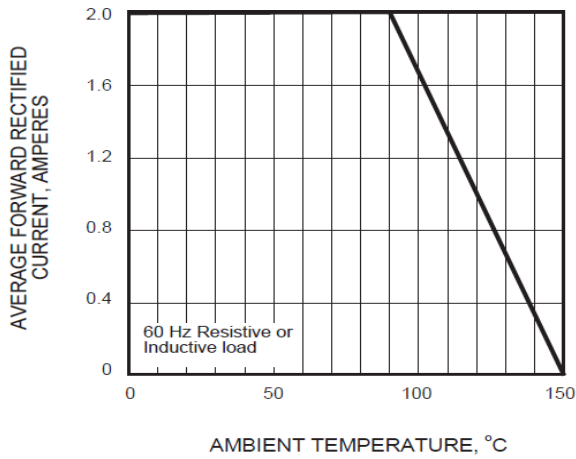


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

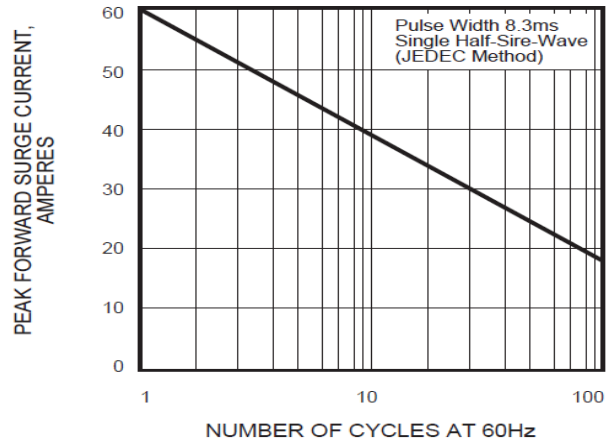


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

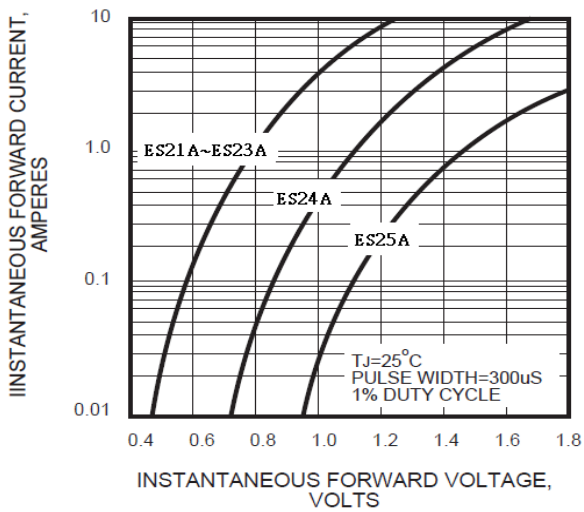


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

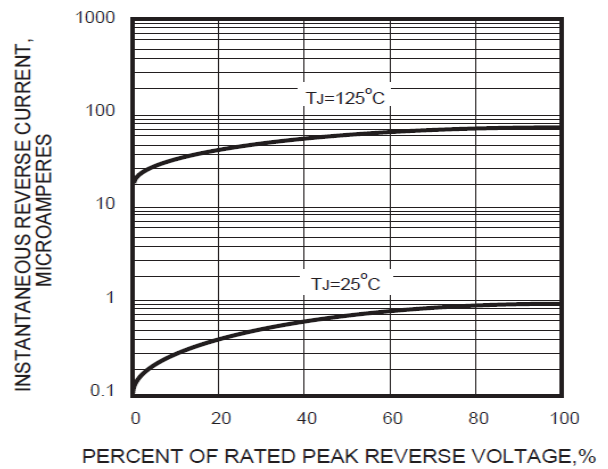


FIG.5 - TYPICAL JUNCTION CAPACITANCE

