ES3K

3.0AMPS. SUPER FAST SURFACE MOUNT RECTIFIER

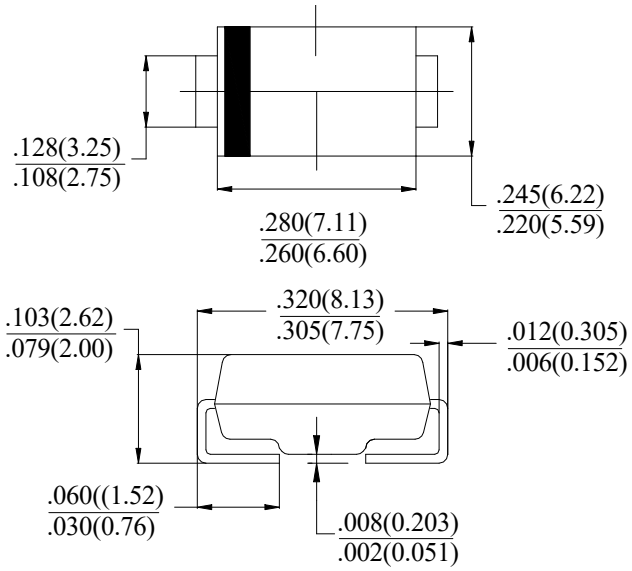
FEATURE

. High current capability
. Low forward voltage drop
. Low power loss, high efficiency
. High surge capability
. High temperature soldering guaranteed
260℃/10 seconds at terminals.
. Superfast recovery time for high efficiency
. For surface mounted application.
. Easy pick and place.

MECHANICAL DATA

. Case: Molded plastic
. Epoxy: UL94V-0 rate flame retardant
. Lead: MIL-STD- 202E, Method 208 guaranteed
. Polarity:Color band denotes cathode end
. Mounting position: Any

SMC（DO-214AB）



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz,resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	SYMBOL	ES3K	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS Voltage	V_{RMS}	560	V
Maximum DC blocking Voltage	V_{DC}	800	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	90.0	A
Maximum Forward Voltage at 3.0A DC	V_F	2.0	V
Maximum DC Reverse Current @T_J=25°C at rated DC blocking voltage @T_J =125°C	I_R	5.0 200.0	μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	50	nS
Typical Junction Capacitance (Note 2)	C_J	30	pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$ $R_{(JC)}$	55 16	°C /W
Storage Temperature	T_{STG}	-55 to +150	°C
Operation Junction Temperature	T_J	-55 to +150	°C

Note:
1. Reverse Recovery test Condition: If=0.5A,IR=1.0A,IRR=0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. P.C.B.Mounted on0.6×0.6”(15.0×15.0mm)Copper Pad Area.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

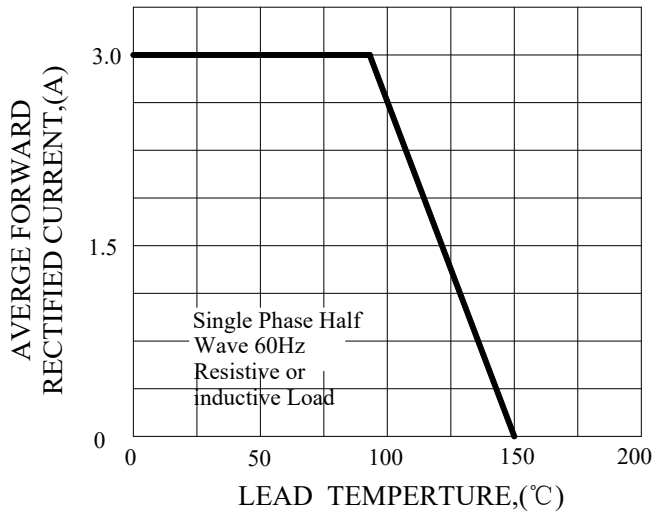


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

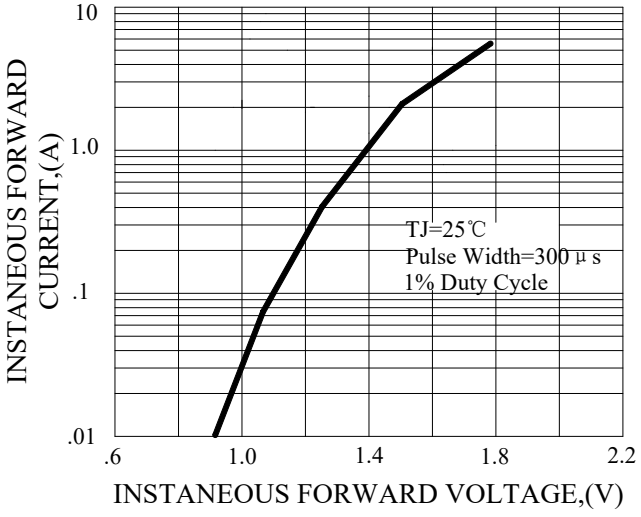


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

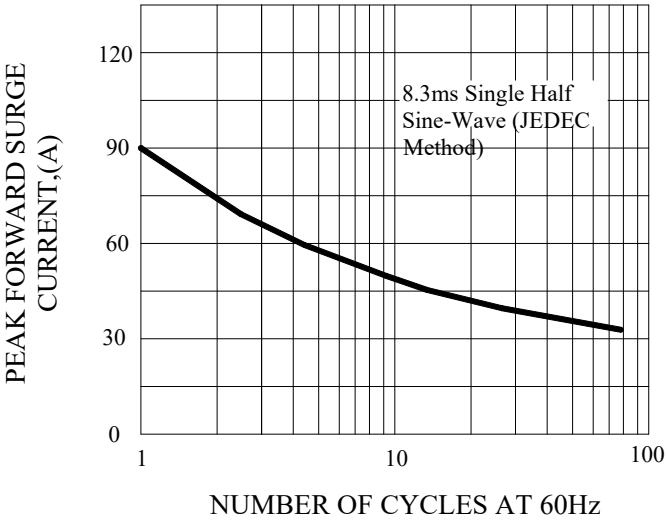
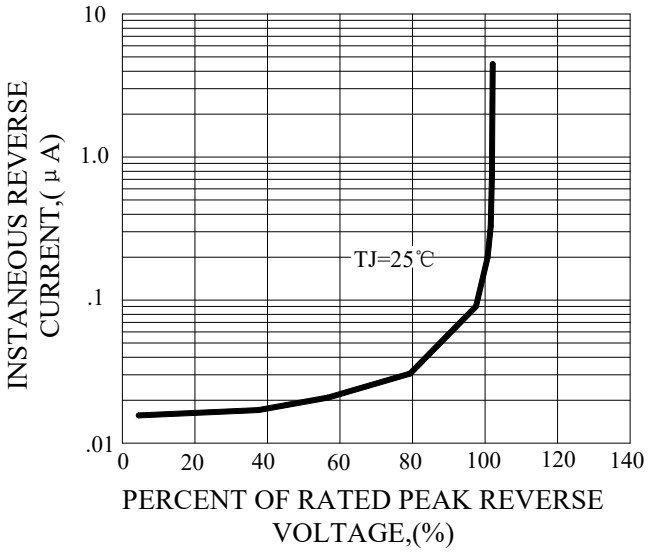
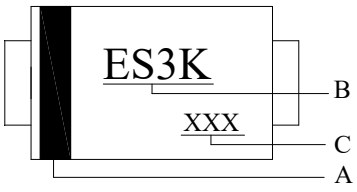


FIG.4-TYPICAL REVERSE CHARACTERISTICS



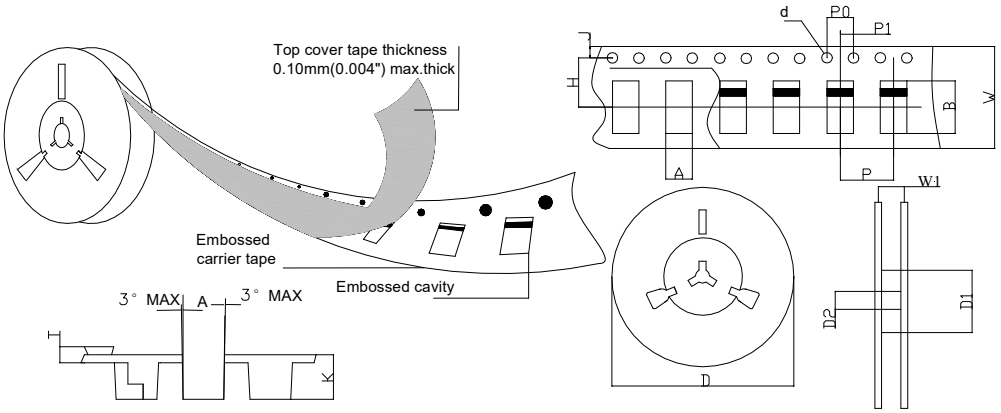
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product Name
C	Date code

2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	DO-214AB	ITEM	SYM BOL	DO-214AB
Carrier width	A	6.15(0.242)Max	Carrier depth	K	2.54(0.100)Typ
Carrier length	B	8.41(0.331)Max	Punch hole pitch	P	8.00(0.315)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	330.0(13.0)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	74.0(2.913)Min	Overall tape thickness	T	0.25(0.010)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	16.0(0.430)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	16.5(0.650)Min
Punch hole position	H	7.50(0.295)Typ			