NOT RECOMMENDED FOR NEW DESIGNS USE ES1A-LTP~ES1J-LTP SERIES



Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311 Phone: (818) 701-4933 Fax: (818) 701-4939

Features

- Halogen free available upon request by adding suffix "-HF"
 Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Superfast Recovery Times For High Efficiency

Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Maximum Thermal Resistance; 15°C/W Junction To Lead

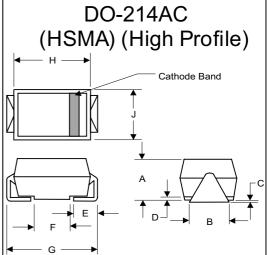
MCC		Maximum	Maximum	Maximum
Part	Device	Recurrent	RMS	DC
Number	Marking	Peak Reverse	Voltage	Blocking
	_	Voltage	-	Voltage
ES1A	ES1A	50V	35V	50V
ES1B	ES1B	100V	70V	100V
ES1C	ES1C	150V	105V	150V
ES1D	ES1D	200V	140V	200V
ES1G	ES1G	400V	280V	400V
ES1J	ES1J	600V	420V	600V
ES1K	ES1K	800V	560V	800V
ES1M	ES1M	1000V	700V	1000V

1 Amp Ultra Fast Recovery Silicon Rectifier 50 to 1000 Volts

ES1A

THRU

ES1M

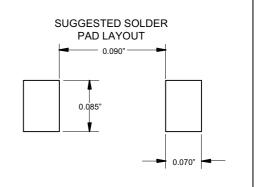


Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward	I _{F(AV)}	1.0A	T _a = 75°C
Current			
Peak Forward Surge	I _{FSM}	30A	8.3ms, half sine
Current			
Maximum			
Instantaneous			
Forward Voltage			
ES1A-D	V _F	.975V	I _{FM} = 1.0A;
ES1G-J		1.35V	T, = 25°C*
ES1K~M		1.70V	Ū.
Maximum DC			
Reverse Current At	I _R	5μΑ	T _J = 25°C
Rated DC Blocking		100µA	T _. = 100°C
Voltage		100 μ. (19 100 0
Maximum Reverse			
Recovery Time			
ES1A-D	T _{rr}	50ns	I _F =0.5A, I _R =1.0A,
ES1G-K		75ns	I _{rr} =0.25A
ES1M		100ns	
Typical Junction	CJ	45pF	Measured at
Capacitance		-	1.0MHz, V _R =4.0V



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.078	.116	1.98	2.95	
В	.067	.089	1.70	2.25	
С	.002	.008	.05	.20	
D		.02		.51	
E	.035	.055	.89	1.40	
F	.065	.096	1.65	2.45	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.100	.112	2.57	2.84	



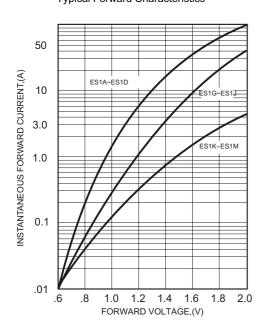
*Pulse test: Pulse width 200 µsec, Duty cycle 2%

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

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ES1A thru ES1M

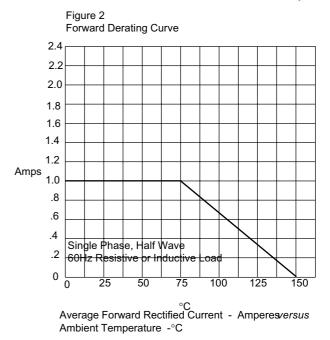
Figure 1 Typical Forward Characteristics

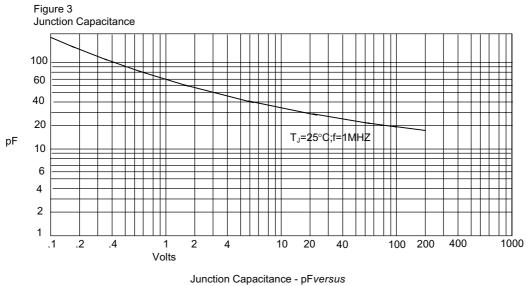


Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts



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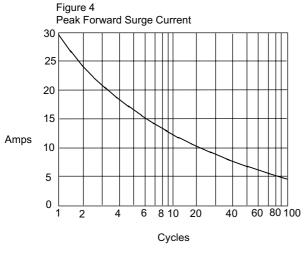
Reverse Voltage - Volts

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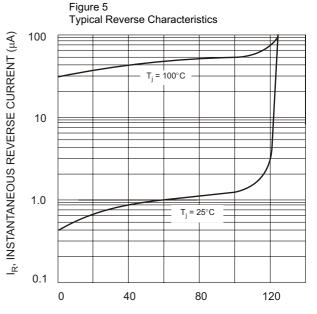


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ES1A thru ES1M

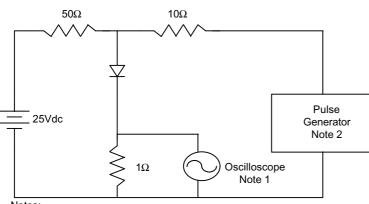


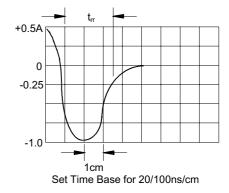
Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

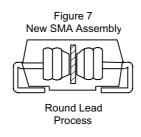
Figure 6 Reverse Recovery Time Characteristic And Test Circuit Diagram





Notes:

1. Rise Time = 7ns max. Input impedance = 1 megohm, 22pF 2. Rise Time = 10ns max. Source impedance = 50 ohms 3. Resistors are non-inductive



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Ordering Information :

Device	Packing		
Part Number-TP	Tape&Reel: 3Kpcs/Reel		

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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