

Micro Commercial Components Corp.

Complete Discrete Semiconductor Solutions

Part Number	ES2D
product family	ULTRA FAST RECOVERY RECTIFIERS
package type	HSMA
VRM(PRV)	200V
lfsm	50A
IF(AV)	2.0A
@Vf	0.975V
@lf	2.0A
Trr	50nS
IR	5.0μΑ
@VR	200V
Package Qty	Tape : 3K/Reel, 48K/Ctn;
his product is listed und Diodes Iltra Fast Recovery Rect	der the following categories where you may find similar products:



Micro Commercial Components

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1
- Easy Pick And Place
- 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; 20°C/W Junction To Lead

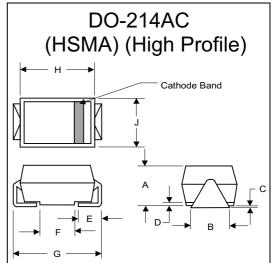
MCC	Device	Maximum	Maximum	Maximum			
Catalog	Marking	Recurrent	Recurrent RMS				
Number	_	Peak Reverse Voltage		Blocking			
		Voltage	-	Voltage			
ES2A	ES2A	50V	35V	50V			
ES2B	ES2B	100V	70V	100V			
ES2C	ES2C	150V	105V	150V			
ES2D	ES2D	200V	140V	200V			
ES2G	ES2G	400V	280V	400V			
ES2J	ES2J	600V	420V	600V			
ES2K	ES2K	800V	560V	800V			
ES2M	ES2M	1000V	700V	1000V			

Electrical Characteristics @ 25°C Unless Otherwise Specified

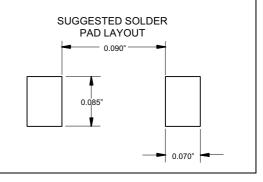
$\begin{array}{ c c c c c } \hline Average Forward & I_{F(AV)} & 2.0A & T_J = 75^\circ C \\ \hline Current & & & & & & & \\ \hline Peak Forward Surge & I_{FSM} & & & & & \\ \hline Peak Forward Surge & & & & & \\ \hline Current & & & & & & \\ \hline Maximum & & & & & \\ Instantaneous & & & & & \\ Forward Voltage & & & & & \\ \hline Forward Voltage & & & & \\ \hline S2G-J & V_F & & & & \\ \hline ES2G-J & & & & \\ \hline S2G-J & & & & \\ \hline S2G-J & & & & \\ \hline S2G-J & & & & \\ \hline Maximum DC & & & \\ Reverse Current At & I_R & & & \\ Reverse Current At & I_R & & & \\ \hline Rated DC Blocking & & & & \\ \hline Voltage & & & & \\ \hline Maximum Reverse & & & \\ \hline Recovery Time & & & \\ \hline ES2K-M & & & & \\ \hline S2G-J & & & \\ \hline Typical Junction & C_J & & & \\ \hline Typical Junction & & \\ \hline C_J & & & \\ \hline C_J & & & \\ \hline S2DF & & \\ \hline Measured at & \\ 1.0MHz, V_R=4.0V \\ \hline \end{array}$				
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$, , , , , , , , , , , , , , , , , , ,	I _{F(AV)}	2.0A	T _J = 75°C
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	•	I _{FSM}	50A	8.3ms, half sine
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Current			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Maximum			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Instantaneous			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Forward Voltage			
$\begin{tabular}{ c c c c c c } \hline ES2K-M & 1.70V & T_J = 25^\circ C^* \\ \hline Maximum DC & & & & \\ Reverse Current At & I_R & 5\mu A & T_J = 25^\circ C \\ \hline Rated DC Blocking & 150\mu A & T_J = 100^\circ C \\ \hline Voltage & & & & \\ \hline Maximum Reverse & & & & \\ Recovery Time & & & & \\ \hline ES2A-D & & & & \\ \hline ES2G-J & & & & \\ \hline ES2K-M & & & & \\ \hline Typical Junction & C_J & 25pF & Measured at \\ \hline \end{tabular}$		V _F		I _{FM} = 2.0A;
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				T _J = 25°C*
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Maximum DC			
VoltageImage: ConstructionMaximum Reverse Recovery Time ES2G-J ES2K-MTrrTrr50ns 60ns 100nsIF=0.5A, IR=1.0A, Irr=0.25ATypical JunctionCJZ5pFMeasured at	Reverse Current At	I _R	5μΑ	T _J = 25°C
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Rated DC Blocking		150μΑ	T ₁ = 100°C
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Voltage		•	·
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Maximum Reverse			
ES2G-J ES2K-M Γ_{rr} $60ns$ 100ns I_F =0.5A, I_R =1.0A, I_{rr} =0.25ATypical JunctionC_J25pFMeasured at	Recovery Time			
ES2G-J ES2K-MOULS 100nsIrr=0.25ATypical JunctionCJ25pFMeasured at		Trr		I _F =0.5A, I _R =1.0A,
				I _{rr} =0.25A
Capacitance 1.0MHz, V _R =4.0V	Typical Junction	CJ	25pF	Measured at
	Capacitance			1.0MHz, V _R =4.0V



2 Amp Ultra Fast Recovery Silicon Rectifier 50 to 1000 Volts



MENSIONS INCHES ММ MIN .078 NOTE DIN MIN MAX .116 1.98 2.95 06 1 70 .0 .51 05 .89 140 1.65 5.21 5.69 .160 .180 н



*Pulse test: Pulse width 200 μsec, Duty cycle 2% Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.



Ordering Information

Device	Packing	
(Part Number)-TP	Tape&Reel3Kpcs/Reel	

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