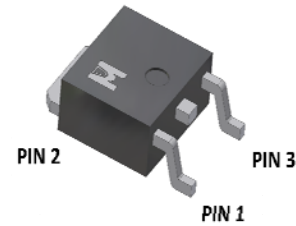
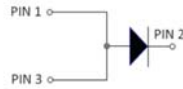


High Current Density Trench Barrier Schottky Rectifier

Product Summary:

$V_{RRM}$	50V
$V_F @ I_F=15A$	0.41V
$I_{F(AV)}$	15A



Trench Schottky Technology

Pb-Free Lead Plating & Halogen Free



ABSOLUTE MAXIMUM RATINGS ( $T_A = 25\text{ }^\circ\text{C}$  Unless Otherwise Noted)

PARAMETERS/TEST CONDITIONS	SYMBOL	LIMITS	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	15	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode	$I_{FSM}$	200	
Operating Junction & Storage Temperature Range	$T_j, T_{stg}$	-40 to 150	$^\circ\text{C}$

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNIT
Junction-to-Case	$R_{\theta JC}$		5	$^\circ\text{C} / \text{W}$
Junction-to-Ambient	$R_{\theta JA}$		75	

<sup>1</sup>Pulse width limited by maximum junction temperature.

<sup>2</sup>Duty cycle  $\leq 1\%$



ELECTRICAL CHARACTERISTICS ( $T_A = 25\text{ }^\circ\text{C}$ , Unless Otherwise Noted)

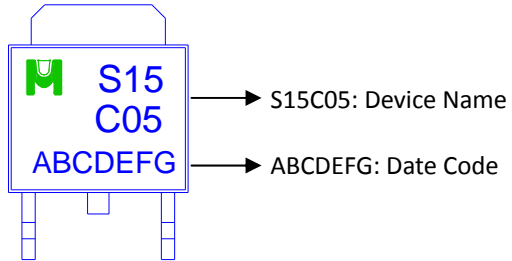
PARAMETER	SYMBOL	TEST CONDITIONS		LIMITS			UNIT	
				MIN	TYP	MAX		
Breakdown Voltage	$V_{BR}$	$I_R=1.0\text{mA}$		50			V	
Instantaneous Forward Voltage per Diode	$V_F^1$	$I_F=5\text{A}$	$T_A = 25\text{ }^\circ\text{C}$		0.38		V	
		$I_F=7.5\text{A}$			0.41			
		$I_F=15\text{A}$			0.47	0.54		
		$I_F=5\text{A}$	$T_A = 125\text{ }^\circ\text{C}$		0.26			
		$I_F=7.5\text{A}$			0.31			
		$I_F=15\text{A}$			0.41	0.50		
Reverse Current per Diode	$I_R^2$	$V_R = 50\text{V}$		$T_A = 25\text{ }^\circ\text{C}$		50	300	$\mu\text{A}$
				$T_A = 125\text{ }^\circ\text{C}$		50	100	$\text{mA}$

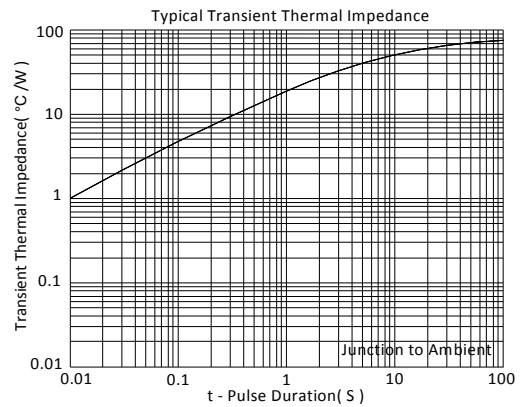
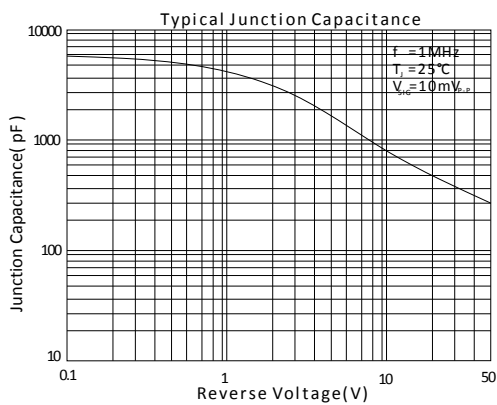
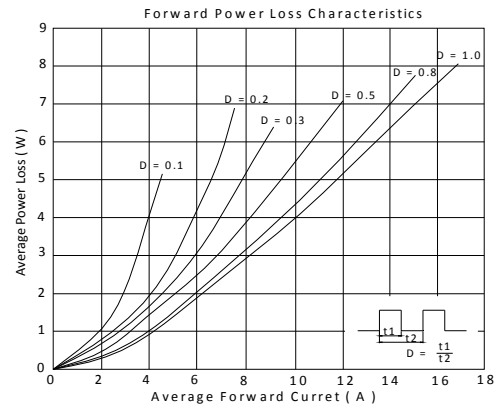
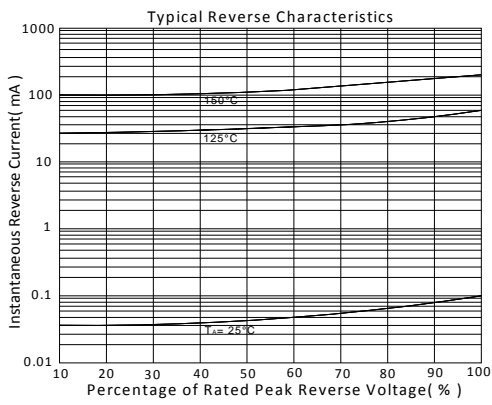
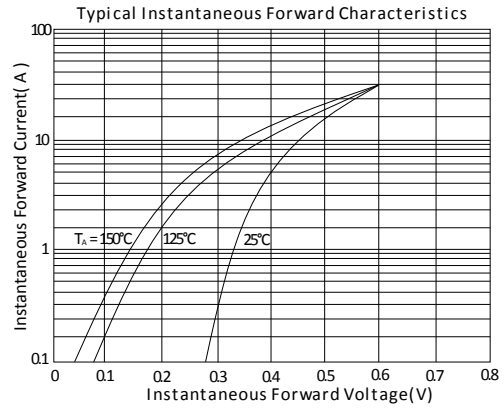
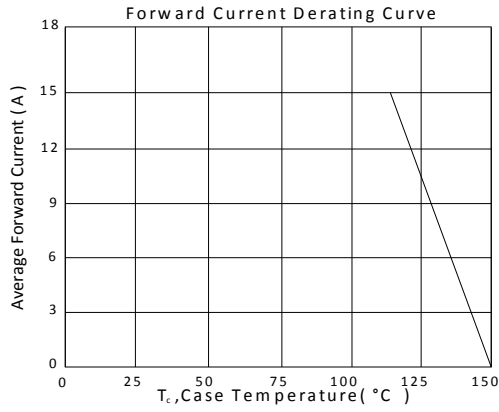
<sup>1</sup>Pulse test : 300  $\mu\text{s}$  Pulse Width, 1% Duty Cycle.

<sup>2</sup>Pulse Width  $\leq 40\text{ms}$ .

Ordering & Marking Information:

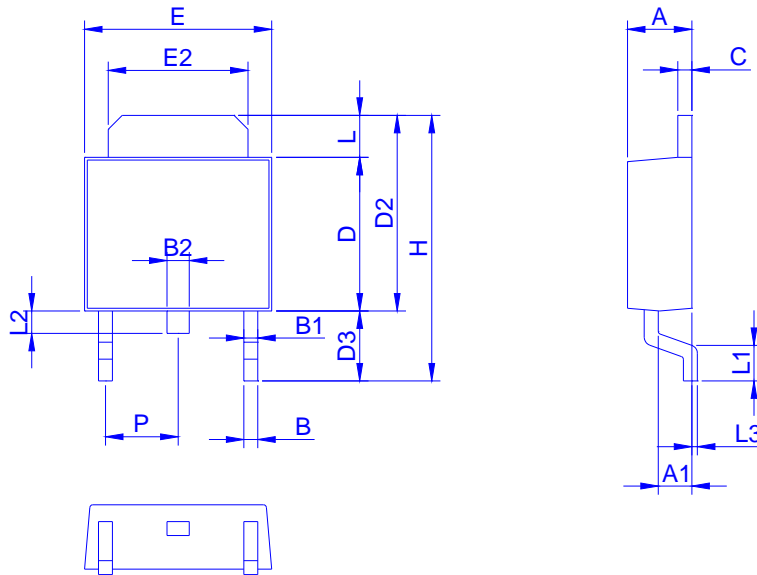
Device Name: EMS15C05A for DPAK (TO-252)







Outline Drawing



Dimension in mm

Dimension	A	A1	B	B1	B2	C	D	D2	D3	E	E2	H	L	L1	L2	L3	P
Min.	2.10	0.95	0.30	0.40	0.60	0.40	5.30	6.70	2.20	6.40	4.80	9.20	0.89	0.90	0.50	0.00	2.10
Max.	2.50	1.30	0.85	0.94	1.00	0.60	6.20	7.30	3.00	6.70	5.45	10.15	1.70	1.65	1.10	0.30	2.50

Footprint

